

# INTERNATIONAL MUSICIAN AND RECORDING WORLD

JULY 1975 25p



**Carl Palmer**  
**Jeff Beck**

**Working Abroad**

**Build a Headphone Amp**  
**Make Your Guitar Stereo**  
**Orange on Test**

Cabinet Survey: Retail Price Scanner

ARBITER AUTO-TUNE  
Available soon at your local



# gauss™... the dynamic sound!

Used by most top artists  
Available from:

**CUSTOM AMPLIFICATION**  
85 Nantwich Rd., Crewe  
0270 4779

**WOODROFFES**  
119 Jenni Blight St., Birmingham  
021 643 6609

**SUN MUSIC**  
110 111 Oxford Rd., High Wycombe  
0494 34466

**COVENTRY MUSIC CENTRE**  
34 Whitfrans St., Coventry  
0203 58971

**SOUND CENTRE**  
9 St. John's Sq., Cardiff  
0222 34048

**REW AUDIO VISUAL**  
146 Church Cross Rd., WC2  
01-240 3364

**WINSLOW AUDIO**  
10 Swan St., Winslow

**JOHNSON ELECTRICS (Letch) Ltd**  
227 London Rd., Sharnford 2  
0747 42272

**TONY SAVILLE CENTRE**  
Peter House, Lower Mosley St.,  
Manchester 2  
061 236 4017

**MCDLAIN MUSIC LTD**  
31/33 Bransford Place, Edinburgh  
031 229 0818/05979

**MAURICE PLAQUEY**  
358-360 Pennington Rd.,  
Sheffield S10 1J2

**MSD SYSTEMS LTD**  
188 189 Kensington Church St., W8

**CHRIS STEVENS MUSIC CENTRE LTD**  
11 Queens Rd., Southampton SA5

**THE BAND CENTRE**  
11 Harcourt Rd., Dublin 2  
0001 75 2663

**MATTHEWS MUSIC STORE**  
23 The Broadway, Madingley  
0672 673395

**S.A.I.**  
Regent Street Showrooms  
Hogart St., Ipswich  
Nr. Chelmsley  
0257 791645

**CADIN**  
156a Goughway Rd., London W12  
01-749 3121

**CASCADE MUSIC**  
42 44 Upper Tooting Rd., Tooting SW17  
01-872 3097

**FREEDMANS**  
621 High Rd., Luton Luton, L11  
01530 0280

**GIQUIND EQUIPMENT**  
7a Wilby Mews, W11 3NP  
01-727 9170

**SUTTON MUSIC CENTRE**  
64 Haddon Rd., Sutton  
0472 2838

**WHITE SOUND EQUIPMENT**  
3 A2 Deepwater, Sunningwell  
0703 78058

**JMZ**  
8 Boreas, Christchurch

**CHRIS STEVENS MUSIC CENTRE LTD**  
33 North St., Romford  
0700 95542



gauss loudspeakers by **Cetec**

Cetec U.K., Sapphire House, 16 Uxbridge Road, Ealing, London W5 2BP  
Phone: 01-579-9145 Telex: 935847

gauss is a registered trademark of Cetec Corporation

### 5 Letters 6 CARL PALMER



*Discusses his transition from rock drummer to all round percussionist*

### 11 Mono to Stereo Guitar Conversion

*Ever wished you had a stereo guitar? If so, here's how to get it.*

### 13 Albums

*Our usual select reviews of albums to interest musicians*

### 14 Soundcheck

*Laboratory tests that reveal the truth about equipment*

### 20 Jeff Beck



*Another exclusive in which Beck reveals his true colours*

### 26 Working Abroad



*If you're thinking of working abroad read IM's complete guide to hassle avoidance*

### 35 America

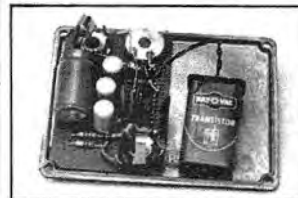
*Dan Peek of the English band that everyone thinks is American*

### 36 Buzz

*We look at new bands with a buzz going on them. This month, Harlot and FBI*

EDITOR  
Ray Hammond  
ADVERTISEMENT DIRECTOR  
Richard Desmond  
PROMOTIONS DIRECTOR  
Malcolm Green  
ART DIRECTOR  
Mervyn King  
CHIEF SUB-EDITOR  
Carroll Moore  
ART ASSISTANT  
Sue Larner  
EDITORIAL ASSISTANT  
Elaine Cooper  
PRODUCTION MANAGER  
Barry Pia  
TYPE COMPOSITOR  
Iris Abraham  
U.S. EDITOR  
Jon Twen  
TECHNICAL CONSULTANT  
Bruce Gibbs B.Sc.  
GUITAR CONSULTANT  
Stephen DeR MIMIT  
CLASSIFIED AD SALES  
Jayne Curtis

### 39 Music News 44 Build a Headphone Amp



*For around £4 and a few hours you can have an IM practice/tuning amp*

### 51 Studio Diary

*Who's been recording where*

### 53 DJM Studios

*The story of a studio's struggle from being "in-house" to fully independent*

### 59 Dealer of the Month - Lou Dean

### 65 Dealer News

*The business that's been done in the shops*

### 69 The Master Room

*Cutting masters is a fine art. George Peckham discusses the problems*

### 73 Cabinets Survey



*Choosing the right cabinet for the right job can be difficult. IM surveys what's available.*

### 84 Price Scanner

### 91 Studio Guide

### 93 Dealer Guide

### 94 Classified

Distributed by Independent  
Magazines Ltd., Bridge House,  
181 Ouseway Street,  
London EC4V 4DD. Tel.  
01-235 9187 (10 lines).  
Printed by W&W Web Offset,  
Maidenhead, Cleveland.  
Whilst every care is taken in the  
compilation of this magazine,  
the publishers cannot be held  
responsible for any results  
arising from the contents  
thereof. The views expressed in  
this magazine are not necessarily  
shared by the Editor. All Rights  
Reserved.  
Copyright ©  
Crown Publications Ltd, 1975

ABC MEMBERSHIP APPROVED

Pending certificate of circulation

July-Dec 1975

International Musician & Recording World

17 Tavistock Street, London WC2E 7PA

Tel. 01-836-5061

INTERNATIONAL  
**MUSICIAN**  
AND RECORDING WORLD

# How to keep the musical excellence you've already paid for:

## Your tape system

The tape equipment of your system is your musical memory bank. It is the one area where only the best makes sense. Choose carefully, select a recording instrument that neither adds nor detracts from the sound you put into it. Few machines really meet this requirement. The Revox A77 does – and by a safe margin.

## Your tape recorder and your money

A truly professional quality tape unit is your wisest audio investment. It will last for years and years.

Witness the number of Revox machines built more than 20 years ago that are still in service! It's hardly surprising then, that Revox recorders command very high prices second or third hand – if you can find them available!

Revox owners seldom change – other than to a later model Revox.

It's also interesting to note that our warranty records show that on average our users have bought 2 or 3 other makes before choosing Revox. Then we read the lament "I only wish I'd bought a Revox sooner."

## When you play it later, will it still sound the same?

At first sight this could seem an unnecessary question. It's not though. In the course of time a high fidelity enthusiast upgrades one or more units in his system.

With time, rising affluence plus advancing technical innovation in all aspects of audio, will bring better reproduction within the scope of all.

The recordings that you make now could, therefore, sound even better in the future – when, as finances permit, you add a better amplifier or loudspeaker to your equipment.

Conversely, a poor recording made now will sound really inferior when exposed to more exacting playback.

With the Revox A77 you will retain the excellence of every recording to enjoy now – and perhaps appreciate even more in the future.

So visit your nearest Revox Dealer for full information and a demonstration.

## Record it on a Revox A77

# REVOX



Revox C. E. Hammond & Co Ltd; Lamb House Church Street London W4 2PB.  
Revox Corporation, 155 Michael Drive Syosset N.Y. 11791 U.S.A.  
Revox Corporation 3637 Cahuenga Boulevard West, Hollywood California 90068.  
Revox International: Regensdorf 8105 ZH, Althardstrasse 146 Switzerland.



# LETTERS

Sir: Having just read your article on building a hum loop isolator I would like to mention one point on which, although the article is not wrong, it might be improved.

You state that any potentiometer between 22k and 100k either log or lin, can be used for a volume control. This is not incorrect, but you recommend a lin pot. I think you will find that if a log pot is used, the volume alters steadily over the whole range of the control. This is not so with a "so-called" linear pot which alters the volume mostly at one extreme of the control. As you say though, any pot may be used with complete safety.

A.J. Baynes  
Loughborough.

*Stephen Delft replies: The reason for choosing a linear pot in this application is a little complex. The pot "sees" a reflected load equal to the value of the 22k resistor across the transformer secondary in parallel with the amp input impedance. This total load may be typically between 6k and 16k.*

*For line bridging applications, the in-out impedance of the box should not be much lower than 10k when the output is loaded. After some juggling of figures — the value of 50k for the pot appeared to be the best compromise. If a 50k pot is loaded with about 10k its "law" is distorted and under these circumstances a linear pot begins to work like a correctly loaded log pot. Unfortunately, the 22k resistor is essential to control the frequency response of the transformer under a wide variety of applications.*

Sir: As this is the season for doing things, may I make a few suggestions that might help *FM* on its excellent way?

1. A series on effects, sorting out range, quality, etc.
2. A feature on the CSL/Ibanez copies which seem to be everywhere.
3. A detailed article on pick-ups.
4. "Famous names" talking about what makes a good axe for them and a breakdown on deluxe and rare models.
5. A survey of the best mid-range amps (50-80w) for the club player.
6. Information on recording or multi-track taping.
7. Surveys on accessories/mikes.
8. Some set-up guides for the semi-pro, perhaps even a monthly music spot for learners with playing tips.
9. A back numbers spot — I missed the first issue.

K. Hallett,  
Bristol.

O.K.

Sir: Please could you let me have any information on Deep Purple? Could you tell me when they came together, when was their first successful single or anything like that.

D. McDougal,  
Stetford,  
Manchester.

*Deep Purple was formed in 1968 by Ritchie Blackmore, Jon Lord and Ian Pace with vocalist Rod Evans and bassist Nick Simper. In the same year their first single "Hush" was a No.1 in the U.S. but did little here, except gain them one T.V. slot on the David Frost show. In 1969 Rod and Nick left and Ian Gillan and Roger Glover replaced them. Albums at the time were Shades Of Deep Purple, Book Of Talisman and Deep Purple. The band's first big U.K. gig was at the Albert Hall. That was followed by the live album Deep Purple In Rock. The "Black Night" single really broke the band in the U.K. and the band went on from strength to strength until July 1973 when Ian and Roger left and the band almost split. Ritchie Blackmore pulled them through and new members Glen Hughes and David Coverdale joined to form the present line up. Ritchie Blackmore has recently done a solo album and Glen and Jon are also working on their own album. It now seems as if the band are splitting again.*

Sir: I play in a local group and last September I bought a Gibson Les Paul Deluxe. Now I am thinking of buying equipment in the 100 watt range and although I have not had much experience with 100 watt gear, so far I have not discovered an amp or speaker combination that would seem to give me that stereotyped "Les Paul Sound" I love so much. I would be grateful if you could supply me with any information that might help me to achieve this sound.

L.A. Glynn  
Southport,  
Merseyside.

*We presume that you are trying to achieve the sustain sound that Les Pauls are famous for producing. The art of creating the best sustain is just that — an art. Carlos Santana is about the best exponent (I'm sure many would disagree!) and contrary to popular belief it doesn't take a large amp to get this sustain. It's necessary for an amp to be overloading slightly and Marshalls are famous for building in a voicing that gets the sound really quickly. You can get the sound you want from an eight watt amp as easily as you can from a 200 watt amp — sometimes it's easier with a small amp and a poor speaker that's distorting. The final result is a product of the right amp and your skill as a player. It may take some time to perfect, but it's worth it.*

Sir: Could you give me any information about building a fairly high quality recording studio, a list of reasonably priced equipment and perhaps some information about using it and how it works?

I have a fairly large room of 1200 square feet at my disposal and I am at present soundproofing it with egg boxes. What do you think of egg boxes for this purpose?

Alan Wells  
Roydon,  
Essex.

*Building a studio is no easy — or cheap — task. Egg boxes certainly provide a degree of acoustic damping, but they're by no means as good as acoustic tiles. Deciding on the equipment for a studio very much depends on what purpose you want the studio to fulfill. There is a healthy market in second-hand recording gear and one of the largest agencies for this type of equipment is Jackson Recorders, The Studios, Rickmansworth, Herts. They'll probably send you a list of equipment they have available.*

*As far as using the equipment goes, by far the best way to learn is through practical experience. A couple of colleges (including The University of Surrey) run courses for engineers so you might enquire at the further education office in your own area.*

Sir: I have been given the opportunity of buying an Arbiter Les Paul guitar retailing around £90. I have a basic knowledge about good and bad guitars but as I've concentrated on acoustics up till now, I have little knowledge of electrics. The Arbiter seems to be very good value but I don't know how to judge the electrics. Have you tested this guitar, or could you give me an unbiased opinion?

D. Monk,  
Crystal Palace,  
London.

*We haven't had an Arbiter guitar in Guitar Check yet but it's on our list for the near future. We agree with your general comments on the guitar and we think the electrics match the overall quality. There's no way that a copy Les Paul will sound exactly like the original but the Arbiter is certainly one of the better copies available.*



## CARL PALMER

Carl Palmer is rightly regarded as one of the finest drummers in the world. Just a few years ago he would have been described as "one of the best *rock* drummers in the world" — today he deserves the higher compliment. Surprisingly, he was unsatisfied as the most successful rock drummer around. Despite a big house, big car and all the trappings, he continued his training in percussion until his ability on tuned percussion instruments matched his amazing technical prowess on drums. Each week his finely controlled timetable takes him to study at the Royal Academy under his tutor James Blades and his time is spent studying and recording a percussion concerto.

*Do you still play every day of your life?*  
Every day? I think it would be a lie if I said I played absolutely every day of my life. When I say play, I mean play two to three hours -- that's playing. Sure, I go and tap around every day -- that's like breathing, you know, it's like having your dinner, you do it naturally. I should think that throughout the period of a week I practise two to three hours, six days a week. The reason why I say six days is that I tend to treat my music like a business and take Sunday off. I feel I have to because I get stale, I maybe play more records on a Sunday.

*At the moment you're not gigging, but have you been doing much recording recently?*

I've been recording an awful lot myself for my own album. I have been writing and rehearsing with a chap called Joseph Horowitz for this percussion concerto which features about 60 players. There's never been a concerto written for percussion before and we have this one coming along. We're going to feature all tuned percussion such as marimba, vibraphone, tympani and tubular bells.

*Which of the instruments will you be playing?*

I'll be playing vibraphone, marimba, glockenspiel, tympani, tubular bells and possibly an enlarged version of a standard drum kit. I've been busy with that, I've also recorded about 19 minutes of music for my own album, worked with Harry South, and I've done a new big band jazz thing.

*Did you enjoy that?*

Yeah, very much. I was also able to record with the late Tubby Hayes. I managed to record twice with him and one of the tracks I'm going to release on this album -- that's a bit of nostalgia.

*Are you pleased with your performance on that track?*

Well, it could be better, but you know how it is, it was a good session. The charts were good and there were a few very good people playing, Don Lusher for instance. The other thing that I've done is play a small piece on vibraphone and piano and I've inserted a small piece by Bach. The piece is an exercise of his really, he has a thing called 15 inventions and this is one of the inventions I play.

*So your tuned percussion has taken over a large amount of your time now?*

The thing is, you see, I'm studying with James Blades, a professor at the Royal Academy, and I study with him once every ten days or so. I've found that as just a drum kit drummer I've taken it as far as I can by the nature of the layout of my equipment. I've realised that no longer can a drummer just have one tom-tom in front of him and another on the floor, that dates back to the days of Gene Krupa. That was O.K. for them, but it's not O.K. for me. I need more tonal sounds. I've taken the drum set as

far as it can be taken and I'm now very interested in the symphonic orchestral approach. So once one is interested in that, you have to consider playing melodic instruments.

*Just how far have your studies taken you?*

I'm now reading reasonably well; most simple parts for vibraphone, marimba and so forth, I can read with confidence. I'm trying to bridge the gap between being just a good rock or swing drummer. I'm trying to be the kind of drummer who's completely all round, in as many ways as possible. A lot of people, Buddy Rich for instance, will just say "I'm a jazz drummer" and whilst I think he's a god, one of the greatest, I think that the time has come in 1975 for musicians to try and span out completely to playing jazz. Life's too short. You should try to play everything. Tuned percussion has taken a lot of work and you have to have the right tuition.

Fortunately enough, James Blades is astonishingly good and he's one of the few people I can go to for lessons. I say 'few' because if you can imagine being in my position and going to somebody for lessons they'll say 'you don't need lessons, you've got a big house, a big car, you've got the money, what do you want lessons for?' If I hadn't had success I'd still be going to lessons now because I enjoy playing. I've never done anything else, I've never had a day time job, it's in my nature to do it.

*During the time that you've been studying tuned percussion have you come up against any blocks or problems that you've had to overcome?*

The only problem I've found is trying to introduce it into the group because obviously it has to be introduced in a certain way so that it doesn't inhibit anybody, so that it will add and not subtract from the overall thing. One of the biggest problems is trying to amplify tuned percussion. Trying to amplify tubular bells, marimba, glockenspiel and tymps adequately is incredibly difficult. There's only one particular company in the whole of the world who makes a vibraphone pick-up. It's a bar that you place under the notes of the vibraphone and it acts as a pick-up on a guitar. That company has now stopped making that device so you can imagine the difficulty one goes through. The biggest problem is not being able to play them in the group.

*Doesn't it work with careful miking up?*

You really don't get the true percussive sound from the notes because to mike it properly you'd really need an individual mike for each note so that some aren't any louder than others. If you hang a mike over the centre of a keyboard the middle notes have to be a little louder than the notes at the extreme ends of the board.



*Continued on Page 8*

*But isn't that how you hear the instrument naturally?*

No. As I hear it, I play all of the notes with equal intensity.

*But if you place a stereo mike where your ears are, isn't that going to hear the same image you do?*

No. It's got to pick up more of the middle than the top or bottom ends and the bottom is a lot harder to pick up than the top. The top will always cut through. The only way you could do it is to mike every note and then mix it down into its right proportions. And then you're talking about all the mallet instruments. There is a pick-up made which I have on my own vibes at home. It's O.K., but it could be a lot better.

*Do you find any limitations in yourself as a player?*

Yes, every day.

*Where are they — in your wrists, in your head and reading, or what?*

Well, I've never had a big problem with sight reading, the only problem I've ever had is not doing enough of it. In other words, one can sit at home and practise and practise like I do, but when you go into an orchestra or into a big band to play, like this thing I did with Harry South where there were 17 players . . . well, it's experience that's needed, right? Sometimes I can be as good as I want to instantly.

For many years I played in a Mecca band where there were about 16 players and a chick singer. I used to wear a red jacket with a badge and a cigarette burn in the cuff where the drummer before me had had an accident, and my reading is up to that standard, which isn't very high. But when you get into more interesting things, you have to be playing them every day: in other words, like a session drummer, to be able to play them really well. When I say a session drummer, I mean people like Kenny Clare, one of the best.

*What facilities do you have for playing at home?*

I've got a very small studio at home, not for recording, but a soundproof studio for playing. At home now I've got a vibraphone, tympani, tubular bells, drums, congas — all the usual things a percussionist would have.

*Do you keep them all in one area?*

Yeah, they're all in one room, all placed so that I can work round and bang them when I feel like it. They're set up in such a way that I can study for any amount of time on one instrument. This particular set-up I've got at home enables me to play throughout the day if I want to and get great enjoyment from it. I've also got a Steinway piano and that's really good for my ear. Of course I've got my guitars which not a lot of people know about, but I do play very bad guitar. I really enjoy playing guitar, not because of the sound so much, but there's a certain amount of volume you can obtain from

an electric guitar which you can't get from any percussion instrument. And all you've got to do is turn a knob and this thing gets really loud. I've got a Gibson Les Paul and a Fender Showman and at home that's O.K. I like it because I can just crank it up and play a couple of tunes. I treat that as a hobby.

*Just how good are you on guitar?*

No good at all, I know about six chords and a couple of lead licks but I play it purely for my own interest. If I'm bored hitting my drums at the end of the day I have a strum on the guitar. I also have an acoustic guitar, a Gibson that was made in 1936. I bought that in Salt Lake City, I think it cost me about 100 dollars and it's a tiny body, on the machine head it says, "Gibson is the best for you". I play that occasionally. I've also got an Arbiter copy of the Gibson J200 and I find them all very interesting.

*Do you collect instruments for their own sake?*

I do to a certain extent but I don't go out of my way to do it. If I walk past a chap in a street who happens to be selling something, yes I do. I have a Hitler Youth drum at home which Hitler used to give to German Youth drummers. I bought that in a music shop in Hamburg. It has all the red flames up the side of the drum, with rope tensioning. I've got a very, very old Slingerland snare drum, made about 1925, with a genuine hickory shell which they don't make today. Apart from that I don't collect that much.

*Tell me about the new drums you're playing now?*

The most interesting thing that happened to me, or should I say percussion, is this auto-tune drum that Arbiter has brought out. The drum itself doesn't really sound any different from any other drum, it sounds as good as any other drum. What the drum offers people — it's hard to explain, you really have to see it — is this: for the first time, if you want to tune a drum to a musical note, this drum can do it.

This particular ratchet system head tuning is so easy, it's possible to tune to any note very quickly. You can change a head on these new drums in about five seconds, take the hoop off, put another head on, turn the hoop, put it back on, and tune it reasonably in about five seconds. To tune it exactly to a note obviously takes a little time.

In this particular system the drums don't have any lugs. They have a counter hoop. The main rim of the drums, moves around the shell on the outside of the drum. There's a ratchet on the side to screw the hoop down which produces an even tension on the head all the way round. So from one point only, you can tension the whole drum head instead of having to tighten up 12 different screws. This is obviously a big asset to many players who want to change their drum heads when they break and it's also a

PALMER





big asset to people who play in a heavy group. Drums usually have tension rods and if you play hard on one edge of the drum, the tension rods work loose due to the amount of stress. With this drum system there are no rods. The shell and the hoop are just a screw which turn against each other, so there are no rods. The shell and the hoop are just a screw which turn against each other, so there are no rods involved. The only thing that can stretch or give is the head itself. If it does you can change it very quickly anyway.

*How long have you been playing these things?*

Well, I haven't really had a chance to experiment with them in front of an audience yet. I've used them in the studio, I've used them in rehearsals and I've used them for my own personal practice. I think it's definitely an innovation.

*Do you anticipate changing over your complete drum set-up to Arbiter drums?*

Yeah, I think if the company make all the equipment I would need to use — to do that, I think they will have to become a fully fledged percussion company — yes, definitely. As it is, now I'm really knocked out with what they have. I use an array of sizes, like 6, 8, 10, 12, 14, 15, 16 and 18 inch drums, and the thing is that lots of drum companies don't make those sizes because they don't think drummers use them. I think that the minute all these sizes are made for me in Arbiters, I'll be playing them in front of people. I'm playing the snare drum all the time at home now, but it's in its infancy now as far as I'm concerned.

*Would the ability to instantly change a head give you more confidence on stage?*

It wouldn't give me any more confidence because I always keep spare drums, all tuned, back stage anyway. The beauty of these drums is not really that they give you more confidence. It's just that it's about time all those tension rods went. It should always have been like this. When you think about it, guitars have changed, organs have changed, but the drum has stayed relatively the same for 300 years. They've had different snare releases. But they've never really changed the actual idea of tuning. Years ago they had ropes which pulled the heads down, now they've got rods which tighten down. This Arbiter drum screws the head down which is the way it should be. Perhaps the most important thing is that if you want a concert A 440 out of your bass drum you can get it easily. To the majority of drummers, I don't think this ability will mean that much. If they want to take it from me, they could do it easily with this drum.

On a musical point, it's far easier to tune a single head drum to a note than a double headed drum. You can tune both heads evenly but there is a volume of air trapped between the two heads and

harmonics are created which make the thing difficult. So if you want to tune your drums — like Stravinsky, who used tuned tom-toms in the *Rites Of Spring* — they are usually single headed drums because they're a lot easier to tune.

A lot of people don't know what an in tune drum sounds like. If I were to experiment with two kits here, I guarantee that when we walked out of the room you'd be able to tell whether a drum was in tune or not. But most people can never tell, only a drummer can tell and only a drummer can tell somebody. These new drums will be great for me because it means that I can sit behind my drum set and it will be the same as I left it the night before. The only thing I'd have to look at is the amount of tension that is given to the head itself. The most valid point I've found with the drum is that when you put a drum head on the drum, put the counter hoop on and turn it in a clockwise direction, the hoop goes round the drum. What happens to the head is that as the tension is equal all the way round, the amount of stress is greatest in the middle. That means that there is far more wear in the middle.

With tension rods you never tension them all equally, you do a little more here and there so you have a less even head, but it also lasts a little longer. With this system the stress has to come to the middle — which is really a point for the head manufacturers. They might have to strengthen the heads or improve them generally. If you put a certain drum head on the Arbiter drum and you crank it up there will still be a ripple on one side of the drum head which means that the skin itself hasn't been manufactured properly. You would never notice this on an ordinary drum because you'd naturally give it a bit more tension there, but this drum finds the faults.

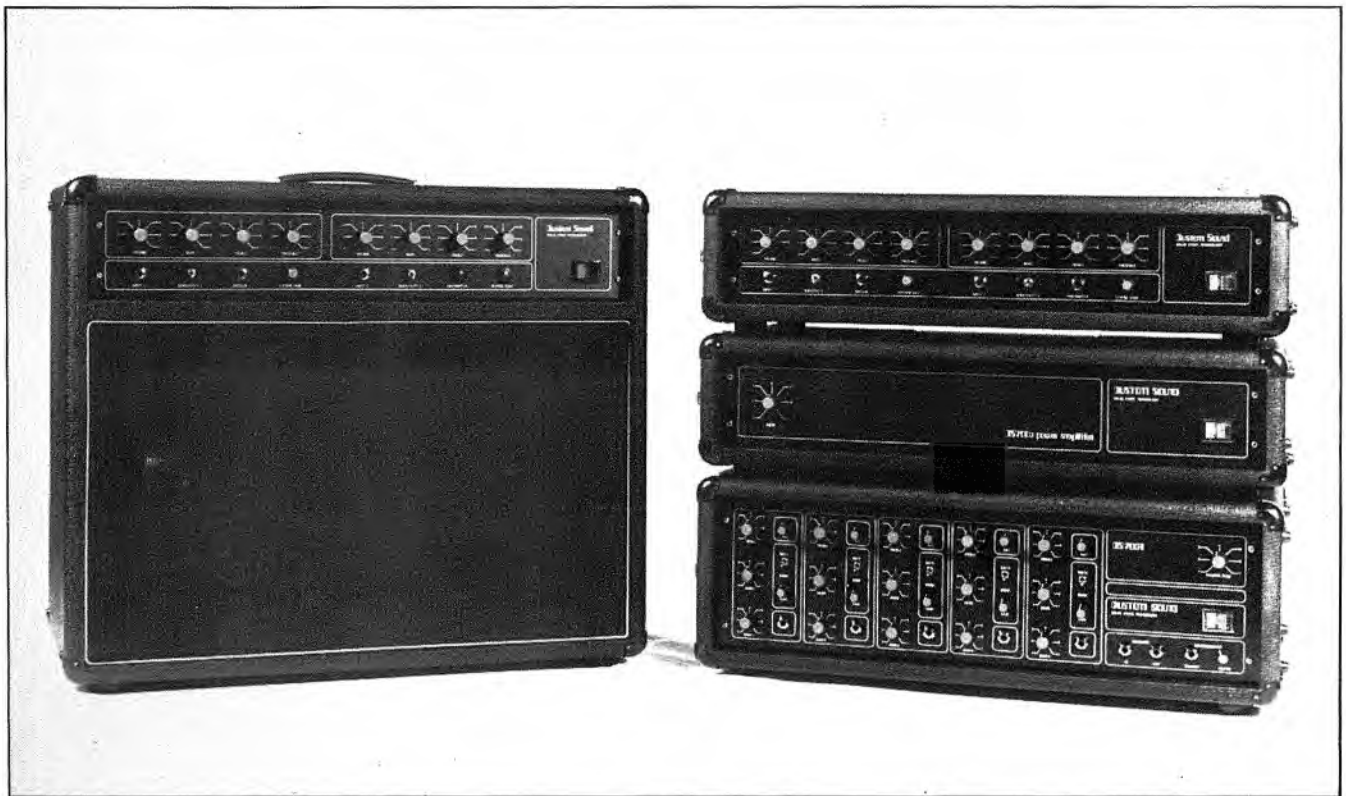
This drum is demanding more of head manufacturers. You have to have accurate heads for tuning, you have to have accurate heads for sound, you have to have it for head longevity. The Arbiter drum is almost as much a head testing machine as an instrument.

*To come back to your music, when you first go into your music room is there something you always play to start you off?*

It depends on what instrument I'm sitting at. If it's a snare drum, funnily enough there is one thing I always play, I've got into a habit I suppose. People have always branded me with a label of being a very fast drummer. It happened purely by accident, I haven't really worked at it, it's just come. I suppose I've worked for two hours every day, but not intentionally to get that title. One thing I always do first — it's probably the thing I'm best known for — is the single stroke roll. I always tend to lay this first of all. Maybe because it's the easiest to play and the hardest to get fast. I just play it naturally.



# Whatever the gig.....



there's an amplifier in our new range  
to suit your application

## 700 SERIES

**CUSTOM SOUND**  
PROFESSIONAL ACOUSTICS DIVISION

Custom House, Arthur Street, Oswestry, Salop.  
Telephone: Oswestry 59201/2.

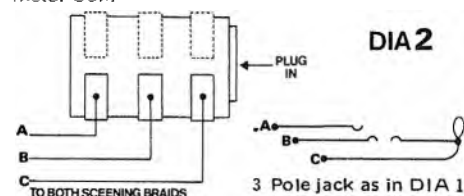
# Mono to Stereo Conversion by Stephen Delft

Certain expensive and/or high quality electric guitars are available in a "stereo" version. This article describes how you can convert most American-style, two pick up guitars to TWO CHANNEL operation, (it is not really "stereo" in the eyes of an audio engineer), with little or no change to the outside appearance of the guitar and requiring only the ability to make neat soldered joints, and less than £5 worth of components including all special plugs and leads. (There are no photographs, diagrams are more appropriate.)

However before you read further, you may be uncertain of the advantages of stereo operation. Basically, the usual guitar arrangement switches, one pick up, or the other, or both, down one lead to one amp channel. Some players have made up special split leads which enable them to drive two amp channels (or two amps) — or more — with the same guitar, and a very few amps have this facility fitted internally in different ways.

The advantage of stereo guitars is that the pickups are connected SEPARATELY to their different amps or channels and the selector switch on the guitar can therefore also select which amp or which effect (such as reverb or fuzz) is needed at any time. Obviously, the choice is limited to A or B or both and you must decide in advance which pick up goes to which amp or effect, but the system is already much more versatile than before:

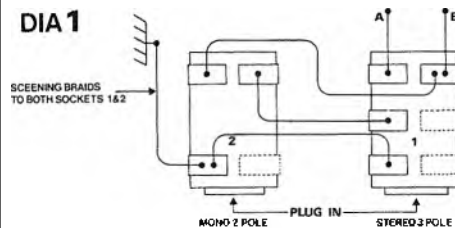
There is an equally important advantage, which is not often realised; once the outputs of the pickups are separated, you can devise foot-switching arrangements which allow almost any combination of different pick ups and different effects units, to your own tastes, by simply inter-connecting standard switches, fitted in a metal box.



If your guitar uses a standard American-type toggle switch, the stereo conversion is relatively simple. As you will see, you have the choice of replacing the existing jack socket with a three-pole type (with the limitation that you must always use stereo leads, or have only one pickup available on a standard lead) or you can fit an additional socket, and have full operation on mono as before, or stereo on a stereo lead, or stereo on two separate standard mono leads. The disadvantage here is that you must find space for, and fit, a second socket.

For reasons of space, I must restrict these suggestions to guitars with two pick ups, two tone and two volume controls and a selector switch which has two visible pairs of leaf-spring contacts operated by the lower end of the switch lever. Fender-type guitars may be converted but may need additional controls fitted, and their selector switches, while reliable in normal use, are easily damaged by removing and re-soldering wires. It is not important whether the switch is of the straight or right-angle type. If your guitar is Japanese and inspection shows that the selector switch is enclosed and has only three connections on a plate underneath, it should be replaced with the American type having four switch connections plus one to its chassis. Unless you understand clearly what you are doing, this job is better left to a qualified technician.

Assuming you have a suitable guitar and you have removed enough cover plates to see switches, controls and most of the wiring, first locate the screened wire connected to the jack socket, and trace it back the other way to the selector switch. You should find that the centre wire inside the screening goes to TWO switch tags, linked together. The screening braid may go to the chassis tag of the switch, probably in the centre, or may be dressed back out of the way. In this case you should find the screening connected to the screening of other wires elsewhere, or to the metal case of one or more controls.



**Jack 1** 3-Pole A-type 'stereo' to fit parallel-shank 3-pole plugs as on headphones and American "split" leads jack tip contact operates switch, normally closed when plug inserted.

Rendar R32720 \* plastic fixing nut  
Rendar R32710 \* metal fixing nut

**Jack 2** Standard 2-pole 'mono' to fit standard guitar leads. Same switching as jack 1

Rendar 32629 or 32620 \* plastic fixing nut  
Rendar 32619 or 32610 \* metal fixing nut

\* Note: these types have additional switch contacts which may be ignored.

You must disconnect this centre wire of the output lead from the two switch tags, and either cut the short wire joining them, or gently pry them apart, while keeping any solder joining them melted. It may be helpful to remove excess solder with De-solder Braid or a commercial suction tool, but I have generally found it sufficient to add a little fresh cored solder to the joint and then shake the soldering iron free of solder and place it UNDER the tags. Most of the solder will run onto the iron. Be careful where you shake the iron, molten solder can be painful.

Now you must run two separate wires from these switch contacts to the jack socket(s) and remember to leave about six inches more than you think you will need. You can either use the existing wire for one channel, and add a second one, or if the old wire looks messy, fit two new wires.

The outer screening braid of any replacement wires should be connected at each end ONLY to the same places as the original wire (except of course at the jack socket, which is going to be changed). Ignore any points where bundles of screened wires are soldered together; simply cut away any unwanted wire from the bundle without trying to unsolder it, but do ensure that you are not cutting the wrong wire. If your finished job hums, one of these bundles probably formed part of the screening inter-connections. Don't worry, just take a plain insulated wire from any point on the outer braid of your new wires and solder it to the case of one of the volume or tone controls where you see other solder joints. Also if necessary a wire from point C on the socket(s), to the same control case. If the guitar still produces hum, you have probably made a mistake — take the instrument to a trained repairman.

Don't be tempted to use "twin and screen" cable for convenience — you will get "cross-

talk" between the channels, and do not use un-screened wire.

When you have two screened wires leading to the position of the new jack socket(s), LEAVE THEM A LITTLE LONGER THAN YOU THINK YOU WILL NEED, separate the screening back for about 1 inch and expose the end of the inner wires. Join the two screens together and consider the inner wires to be A and B. Then follow one or other of the socket wiring diagrams shown. On the single socket version, the A wire is the one which will still connect to a mono lead.

The simplest way to fit a second socket to a Les Paul-type guitar is to remove the socket mounting plate from the outside, cover all the inside wiring with plastic sheet held down with masking tape then enlarge the hole in the guitar side, to take two sockets, with a carpenter's brace and bit (not an electric drill). Stop just before the drill breaks through, and finish off with a sharp knife and a round file, taking care not to damage any wiring etc. with the end of the file. Then make a new mounting plate which can be bent to fit the curve of the guitar. This bending brings the rear ends of the sockets closer together and you must allow for this. Also remember that leads to the jack sockets should be long enough to go out *through the hole* and connect to the sockets *outside*, where you can see what you are doing.

Two points which may help are:—

When you remove the outer plastic sheath of a screened cable, the fine wire braiding surrounding the inner conductor is the "screening"; if it is plaited, it should be carefully unpicked and the strands SLIGHTLY twisted together before soldering.

Do not leave the soldering iron on a joint any longer than necessary for the solder to flow cleanly into place; excess heat may carry up to the screened wire and melt the insulation between the screening and the inner wire. This fault is often very difficult to locate, without replacing the wiring piece by piece.

## SUPPLIES OF MATERIALS AND COMPONENTS FOR IMPROVING A 'COPY'.

\* Pieces of Ivory may be obtained from Mr. Freidlein, who I believe is now in Old Ford Road in East London.

\* Volume and tone control pots with long mounting bushes and splined shafts, may be obtained from Stephen Delft, or in larger quantities, from Radiohm, East Grinstead. The spindles are plastic and if gently pinched with wire-cutters to distort the splines, will fit most splined knobs.

## ERRATUM AND ADDENDUM

MAY '75 HUM LOOP ISOLATOR.

Under certain conditions, the capacitors used (1 microfarad) may cause some loss of signal below 60 Hz. With most P.A. and instrument speaker systems, this is unlikely to be detectable, however, increasing the capacitors to 2 microfarads each, will maintain full signal to about 30 Hz. Also the Jack sockets should be described as "mono".

JUNE '75. IMPROVING A COPY GUITAR:

Re: Fender-type guitars: You may try varying the usual 0.1 capacitor to 0.05, 0.022, or even 0.01.

Re: Funny tone controls: by replacing the tone controls only with 250 K log pots.

The first diagram is DIA 2, below it is DIA 1. Conversion from type 1 circuit to type 2 is shown in DIA 3.

Bottom of column 3, page 12; some makers... prefer... circuit 2, but I feel type ONE is the lesser evil.

Unfortunately, the section of the article describing the electronic device, (the "BLOB"), was omitted. If you are interested in obtaining this device, which I fit to my own guitars, please write your name, address AND TELEPHONE NUMBER on a postcard marked "Blob" and send it to me, care of the Editor.

# GHERSON GUITARS

All Guitars are hand crafted and finished exclusively for Davoli from selected woods and supplied with hard case, strap and lead. Left hand models are available

These Solid Bodied Guitars and Basses are fitted with fully adjustable Bridge, Neck and Pickups (twin pole Humbuckers) with separate tone controls allowing a very wide tonal variety. Rosewood fingerboard with pearlised inlays. Colours - Natural, Walnut, Cherry.



This Guitar has a solid Mahogany body finished with attractive inlaid Copper edging. Rosewood Neck and Gilt fittings supplied with fully fitted shaped case. Natural Mahogany finish. Also available in Walnut.

The Gherson Jazz Bass is quickly becoming a very rated Bass Guitar with a body made of Ash with Rosewood fingerboard. Two fully adjustable pickups. Adjustable neck and bridge. Colour - Natural.

## DAVOLI FOR GHERSON GUITARS

For brochures and details of local stockists write to:

Davoli (U.K.) Ltd.,  
Davoli House, 859, Coronation Road,  
Park Royal, London NW10.  
01-965 8646.



# ALBUMS

## McKendree Spring: *Get Me To The Country*. Dawn (Pye) DNLS 3067

Not a bad package from McKendree Spring, this *Get Me To The Country*, but nothing to rave about, either. The only thing that annoys me about the album is the slick, false innocence that is too often found when city boys play country. Regardless of their instrumental skill, which is respectable, McKendree Spring bring an unwarranted smugness to a number of otherwise effective songs. A pleasant exception is "Easier Things Have Been Done", a strong ballad in the style of Kristofferson. The vocal is perfect — a good, rich, broken sort of voice that lends itself perfectly to the song. It is only the smooth harmonies that slightly ruin the mood which let this number down. "Meeting In Paris" is also a nice track, expressing at once the lonely and wistful aspects of broken romances. The most surprising and refreshing piece on *Get Me To The Country* is "She'd Never Leave Chicago", a narrative report of a conversation between the singer and his lady's father, whose wife would "never leave Chicago". There really isn't enough humour in popular music, and this example is particularly effective. Performing neo-country music demands either a revision as the Greatful Dead demonstrated, or a sense of humour, and this track is a fine example of a successful contemporary use of the humour found in traditional country music.

*Produced by Mark London, engineered by Martin Rushent and Randy Mason.*

Carroll Moore

## Stray: *Stand Up And Be Counted*. Dawn (Pye) DNLS 3066

With this album, Stray are indeed Standing Up, and with any luck, it should be their turn to be counted. For some reason, they have until now fallen into the category of bands which are dismissed, but *Stand Up And Be Counted* is the sort of album which tends to bring about a reappraisal. They are, in fact, very good for what they are, and that is a lot better than being bad at what you are not. There is a slightly dated feel about some of the songs on this album, and if I had to point to a year, I suppose it would be 1970, because the lyrics are very much evocative of that period. Songs like the title track and "For The People" are full of the anti-establishment, pro-freedom mythology that characterised so much of the music of the late sixties and early seventies. The difference with Stray, and their saving grace, is that because such themes are no longer commercial, there

is a genuineness about the feel of the album, which makes *Stand Up And Be Counted* worth listening to. The guitar playing is worth a listen, too. Pete Dyer and Del Broham are a sympathetic duo, and the duet on "Precious Love" is a particularly nice example of a fine musical relationship. Also worthy of attention is "Waiting For The Big Break", which pretty much sums up the sadness, hopes, and joy of a professional musician's life in a lightly mocking, country-ish framework that, by treating the problem as a good natured grouse, puts it into proper perspective.

*Produced by Wilf Pine, engineered by Richard Manwaring.*

Carroll Moore

## Fairport Convention: *Rising For The Moon*: (Island ILPS 9313)

Fairport Convention are the living proof that there is room for gentle, subtle electric music in a business which Dave Edmunds correctly summed up in the title of the LP reviewed on this page. Sandy Denny has a voice of peculiar charm and sweetness and for some reason she has never found a better frame for it than the Fairports. Fotheringay was a fragile delight but lacked the capability of being funky. Here the delicacy is captured without sacrificing the bite. Trevor Lucas can play very hard electric guitar whilst making it sound extremely relaxed. Sandy Denny is most certainly the best writer for Sandy the singer. The title track on this album is a delight and in cohesion and feel is reminiscent of the *What We Did On Our Holidays* days which I regarded as a pinnacle for the early band. Fairport have had an extremely chequered career and the new member on this album is drummer Bruce Rowland, ex-Grease Band. As usual the Fairports manage to make these sort of changes without the direction of the band being affected. It's as if Fairport Convention had its own life apart from its members and continued onwards without pause, despite the comings and goings of individual musicians. This is the best line-up I've heard since the earliest days. I prefer it to the "Liege and Lief" line-up, and I hope they will recognise it and remain together as long as the greater id of the Fairports demands.

*Produced and engineered by Glyn Johns, Recorded at Olympic Sound Studios, London, Mastered at the Mastering Lab, Los Angeles.*

Ray Hammond

## Dave Edmunds: *Subtle As A Flying Mallet*: Rockfield RRL 101

Edmunds typifies a dream for most of us. He's sacked the rest of the band and records albums playing all the instruments himself. Like Roy Wood, he's heavily into the "sixties re-created", but on the whole, his attempts are far better. The classic that opens the album is "Baby I Love You" and he follows it up with "Da Doo Ron Ron" and "Born To Be With You". In between these revivals are interspersed more revivals which are not a la Spector: Chuck Berry's "No Money Down" and "Let It Be Me" for example. The Spector recreations are even more heavy than the original sounds and it's a tribute to Edmunds that in addition to playing and singing all the parts he also engineered the whole thing! However, the best parts of the album are his re-makes of the Chuck Berry songs. "No Money Down" is so, so good. This is an oddity on the album because he uses Brinsley Schwartz as his back up band and the track, although recorded live in Cardiff, is so tight it's breathtaking. The whole album (with the exception of the live recordings) was made at Rockfield and there is certainly a feeling of continuity suggested by a similar basic sound on all the tracks. This is something many artists forget about as they jet from studio to studio laying tracks that are to be collected together on one album. Here the basic rhythm section sound is always recognisable but this does not lead to any monotony in sound. There are some delightful vocal parts that Edmunds writes and sings and despite obviously having to run the multi-track tape backwards and forwards a million times during recording to put down all the parts himself while doing the engineering at the same time, there's no sound of boredom or tiredness in the performance. Perhaps this new type of one-man band will never really rival a band who are storming along together because in the ideal situation, they become a whole greater than the sum of the parts. But Edmunds needs other musicians far less than most.

*Recorded at Rockfield Studios, Engineered and Produced by Dave Edmunds.*

Ray Hammond





Test Report on: *Orange Graphic Amp.*

Date: *June 1975*

*£142.35 Ex Vat.*

**Construction**

The Orange Graphic amplifier is a traditional all valve design capable of driving 120W RMS into 4, 8 or 16 ohm speakers. It has a single input channel with two input sockets; one high and one low sensitivity. A total of four tone controls are provided. These are: standard bass and treble controls which both provide boost or cut relative to level response; 'boost' which lifts the whole of the treble range evenly without providing excessive high treble; and something called 'F. A. L.' which is a switched bass cut control that gives 6dB/octave bass cut from six selected frequencies. A mains selector allows the amplifier to be used on all normal AC mains supplies including 110 volts AC. The unit is said to be fully protected by fuses and the fuse rating, mains voltage selection and speaker impedance selection are all clearly marked on the metalwork.

The construction is traditional in almost every way with all the valves and transformers etc. mounted on a steel chassis which is fitted into a (leatherette) covered, plywood box. The only deviations from tradition are the bright orange paint on the metalwork. The components used are all of the very highest quality, e.g. Parmeco transformers, Mullard and Brimar valves, and Plessey electrolytics. No components of 'second quality' or 'unidentified' make have been used at all. Most small components are mounted on a single glass fibre printed circuit board. Soldering and wiring is good and plastic ties have been used to keep the wiring tidy.

The non-removable mains cable is retained by a special rubber grommet. This is a good idea but it was found not to be gripping the wire tightly.

The following table gives the performance of the unit as measured in our laboratory.

	RESULT	TEST CONDITIONS	COMMENTS
Power Output	148WRMS	@ 10% total harmonic distortion	
Distortion (total harmonic)	4.6%	@ 120WRMS 8 ohm load	Distortion levels are high but reasonable for a valve amplifier
	3.8%	@ 60WRMS Hi input	
	0.5%	@ 1WRMS @ 1KHz	
Sensitivity	12.5m VRMS	Hi. I.P. for 120W output @ 1KHz.	Plenty of sensitivity for guitars.
	25m VRMS	Lo. I.P. Boost control min. Bass and Treble set central.	
Tone Controls	Treble range 16.8dB	@ 10KHz	- fair range
	Bass range 26dB	@ 50Hz	- good range
	"Boost" range 11.3dB	@ 3KHz	- a useful control which is not usually provided
"F. A. L." range	27dB bass cut	@ 100Hz (6 switched positions)	
Slave OP	-1.5dBm	for 120WRMS out of main amplifier	fractionally low for many slave amplifier as 0dBm is normal input sensitivity.
Output Protection		Open Circuit	O.K.
		Short Circuit	The amplifier worked correctly after 2mins short circuit but the fuse did not blow, as it should have done. The amplifier became very hot and there was a smell of hot varnish.
Noise	-94dBm referred to I.P.	tone controls set to best square wave response i.e. flat frequency response.	Reasonable.
Capacitive	O.K.	1uF and 8u load	good stability margin.

**Conclusion**

As an engineer I must admit that I tend to see valve amplifiers in the same light as steam locomotives! The technology is old but they can work perfectly well and they are easy to maintain. As a musician I am also aware that there is a "valve" sound which is different from that of transistor amplifiers and is preferred by many musicians to transistor amps. The difference is mainly in the different nature of the distortion. Total harmonic distortion of 4.6% at rated output looks bad compared with the 0.1% or so which is typical with many transistor designs, but in this case, I am tempted to remark that this is part of "the valve sound". Certainly, most valve amplifiers will give a similar distortion figure.

Tone controls work well but more meaningful names and a better description of their operation on the instruction card would be useful. The "boost" control is described as "a secret design" but the circuit used is not original. Orange set a high standard of engineering and do not need to sell "magic".

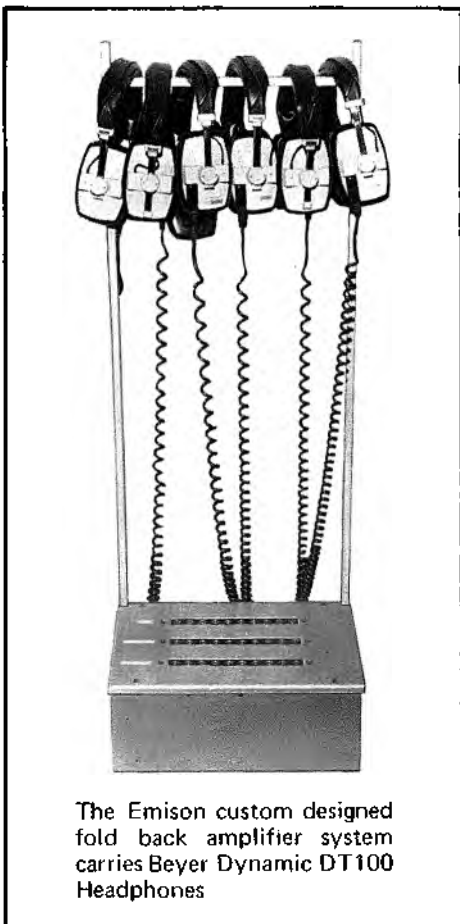
The short circuit test of the output protection gives some cause for concern even though the amplifier survived the two minutes of short circuit while being fully driven. The fuse, which should have blown, did not; and the amplifier became very hot indeed. It is only fair to point out that designing output protection for valve amplifiers is very difficult and few amplifiers of the valve era would have survived the short circuit test. The temperature rise under normal conditions is perfectly all right.

A circuit diagram is provided on the instruction card, and this together with the basic nature of the circuit should make maintenance quite easy. This is a feature which will be attractive to many professional bands.

The word "Graphic" in the amplifiers' title is a little misleading - perhaps refers to the front panel decoration, which includes an attractive coat of arms. The graphic does not have as many facilities as most transistor amplifiers of a comparable price but it is very well made and should give good service to anyone who is looking for "the valve sound". One would have to look a long way to find another valve amplifier of comparable quality.



# Speaking to the professionals at **EMISON**



**John Andrews said: "I have used Beyer Dynamic from the very start because we work to Broadcast standards."**

#### M201 Dynamic Moving Coil Microphone

The M201 is a high quality product for the most demanding professional users. It will find its application as hand held or standmounted microphone particularly in recording and broadcast use. By its excellent hypercardioid characteristics the M201 is immune to unwanted noise even under extreme acoustical conditions.

Frequency Response :	40 - 18 000 Hz
Polar Pattern :	Hypercardioid
Output Level :	1.4 mV/Pa $\pm$ -56 dbm
EIA Sensitivity Rating :	-149 dbm
Electrical Impedance :	200 ohms
Load Impedance :	> 1000 ohms
Hum Pickup Level (50 Hz) :	5 $\mu$ V/5 $\mu$ Tesla



## **BEYER DYNAMIC**

BEYER DYNAMIC (GB) LTD · 1 Clair Road · Haywards Heath · Sussex  
Tel : Haywards Heath 51003

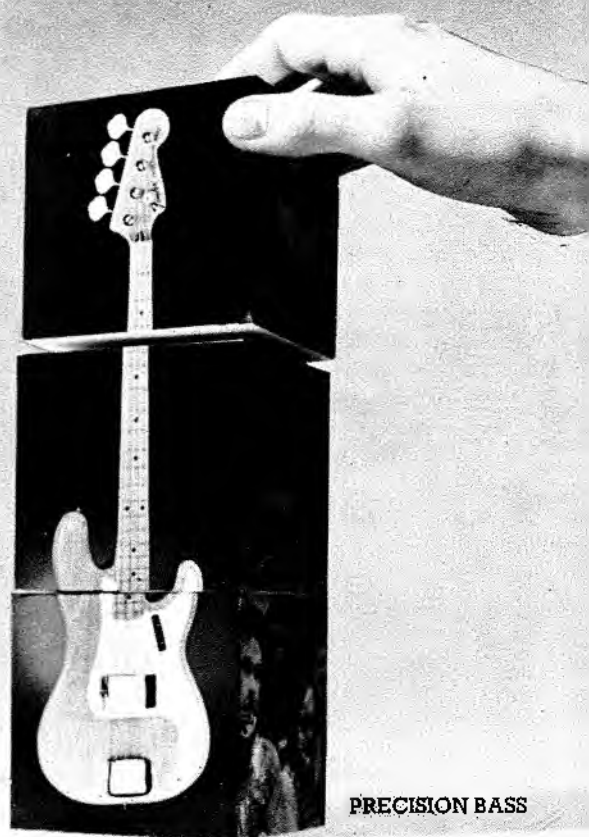
# The foundations of rock were laid by *Fender*



TELECASTER



STRATOCASTER



PRECISION BASS

## Think what Fender could do for you!

Since the earliest days of rock & roll Fender guitars have lead the way. The Telecaster — the world's first solid body electric guitar, was made by Fender back in the early fifties — and to this day it is the most widely used electric guitar in the world. A fine tribute to its quality, design, concept and workmanship. Today the Telecaster is complemented by a wide range of guitars from the Fender family like the Stratocaster with its unique waisted body recognised the world over as the Fender Shape —

the 3 special Fender pickups giving the famous Stratocaster "Sound with a Bite" — the Precision Bass — strong on performance, strong on looks. In this day and age of overnight superstars experience and craftsmanship may seem unnecessary. Fender cherish it.

It's what the Fender reputation is built on. With the foundations now solidly laid, let Fender help you build your reputation.

*Fender*  
GUITARS

**ROCK SOLID**

EXCLUSIVE U.K. DISTRIBUTORS

**CBS/ARBITER LTD**

213/215 TOTTENHAM COURT RD., LONDON W1. 01-323 4881/9.



Test Report on: *Phase Linear 4000 Auto Correlation Pre-Amp.*  
 Date: *JUNE 1975* £340-00 Ex Vat



The Phase Linear 4000 is a high fidelity pre-amplifier of a more sophisticated type than usual. The pre-amplifier can take its input signal from any one of five sources. The selected source can be one of two magnetic pick-up cartridges, an auxiliary, as with a radio tuner, a second radio tuner or a tape recorder. Provision is made for a second tape recorder so that recordings can be transferred from one to the other. The bass and treble controls for the left and right channels are separate, which seems odd, I can't imagine wanting different tone settings on the two sides. Both bass and treble controls are 11 position switches not the normal continuously variable type, and there is an additional switch for each which makes it work from the centre of the audio range or just control the extreme end, leaving the middle flat.

The most interesting feature of the amplifier is a noise suppression system using 'auto-correlation' technique. This is as effective as the Dolby noise reduction system but different. The auto-correlation can be used with a tape recorder which is already fitted with a Dolby system and the overall noise reduction will be a cumulative effect. The second most interesting feature is the inclusion of an S.Q. quadraphonic decoder, a joystick type balance control and the associated front and rear, left and right outputs. Even this is not the end of the features. A third one is a volume expander which can undo the volume compression which often has to be used in the recording process to reduce signals of exceptional dynamic range to a relatively constant signal level suitable for recording.

The construction is of standard 19 inch rack format with a totally enclosed electronic box mounted behind a beautiful satin chrome front panel. All the knobs and switches are also satin finish and of large proportions giving a very solid but space age appearance.

The inside of this large box is very full of "works". There are a total of 14 glass fibre printed circuit boards which carry all the components including the front panel switches and the input and output sockets on the back. Two of the boards are "mother board" which carry edgeway connectors into which the other boards plug. This technique almost does away with conventional wiring.

Components are all of good quality and soldered joints are good. The input and output connectors are phono plugs; and two stereo jack sockets are provided on the front panel for additional outputs.

The noise reduction system and volume expansion unit, which we would particularly have liked to test fully, could only be given a qualitative test. Both these systems seemed to work very well.

Parameter	RESULT	TEST CONDITIONS	COMMENTS
Sensitivity			
Phono 1	1.1mVRMS	Test signal at 1KHz for an output level of 0dBm.	Expressed in dBm, the levels are 1.1mV = -57dBm and 118mV = -16.3dBm
Phono 2	1.1mV		
Aux	118mV	Volume control at maximum.	good sensitivity
Tuner	119mV		
Tape 2	116mV		
Noise Referred to iP			
Phono 1	-155dBm	Wide band measurements for one channel with 47Ka dummy source	Good
Phono 2	-153dBm		
Aux	-92dBm		
Tuner	-92dBm		
Tape 2	-92dBm		
Crosstalk			
Phono iP	-19dB	This is the amount of L.H. which breaks into the R.H. and R.H. channel which gets in to the L.H. one	Not at all good on phono.
Aux iP	-41.5dB		
Treble Control	+10.0dB -15.5dB	Boost Selector switch set to 2KHz and test at 20KHz Cut	
	+3.7dB -8dB	Boost Selector switch set to 8KHz and test at 20KHz Cut	
Bass Control	+8.5dB -7dB	Boost Select set to 150Hz and tested at 40Hz Cut	Less range than conventional tone controls
	+4.5dB -4.8dB	Boost Select set to 40Hz and tested at 40Hz Cut	
Square Wave			Good and clean
Output level at clipping	9.7VRMS (+22dBm)		Good
Distortion	0.08% 0.14%	Phono 0dBm output level on 1KHz test sig. Aux	
Bandwidth	20Hz to greater than 100KHz - far greater than necessary		
Conclusion	Our Overall impression of this unit is favourable. The standard of construction is good and the performance is good in most respects. We regret not being able to test the star feature: the noise reduction system - maybe some other time. In this country and in the whole of Europe, an AC mains wire should be brown, blue and green/yellow. The Phase Linear has a mains wire of good quality but colour coded black, white and green. With a little common sense, it can be determined which wire goes where, but guess work should not be necessary on something as important to safety as this.		

# Gibson Grabber Bass

Retail Price £181.20

This guitar, in company with its companion, the Ripper Bass, represents something of a new design policy by Gibson. It is made entirely of blonde wood, with a natural satin-matt finish, and combines features associated with various makes of bass into one instrument.

The neck is maple, with heavy-duty machine heads similar to those fitted to most Fender basses. The neck is also commendably straight, though it is more flexible than I would like; if the truss-rod were fitted as near as possible to the back of the neck it would probably improve rigidity.

The finger-board is also maple, and although it is of high quality and well fitted, the use of this wood for a fingerboard makes the choice of truss-rod geometry more critical than usual. I can honestly say that the standard of fretting and fret finishing is the best I have ever seen, ex-factory, on a Gibson or any other bass.

Much has been said about fret finishing on recent American guitars and I believe some of it to be entirely justified, but these frets are lapped and polished to the standard of a good "Customising" job. I have only three small doubts about the fingerboard: 1) Any maple fingerboard relies on its lacquer film to prevent it from becoming grubby; this lacquer is already beginning to wear off on my sample. (I see no solution to this problem except perhaps impregnation. If the lacquer is thick enough to withstand wear it also makes re-fretting disproportionately expensive); 2) Maple fingerboards are relatively soft and in their nature difficult to re-fret well; 3) Visually, plastic mother-of-pearl and blonde maple do not look well together and black dots, as in the edge, would be preferable.

It is not a criticism of the frets to say that they are unable to withstand the ill-made and highly abrasive strings fitted to my sample. To be fair, they may not be the original strings but they were supplied on the review sample.

The string length is conventional long, or extra long — scale at 870mm/34 $\frac{1}{4}$ ". Neck width at nut is 41mm/2 5/8", 1mm wider than a modern Precision Bass. I am pleased to say that the instrument arrived adjusted for a reasonable action and exact string intonation.

The body is made from selected poplar and is contoured front and back for comfort. Like the neck, it has a fine satin finish which is more uniform than one can normally expect from satin lacquers and I suspect it may have been finished with wire-wool.

This finish has the disadvantage of collecting grubby fingermarks, though they wash off easily, and the advantage that it does not reflect glare from theatre lighting. Considering the time spent on this pleasing finish, it is a pity that the makers did not spend a few more minutes putting the edges of the guitar over a brush-backed sander to remove its many sharp corners.

There are more ways in which this instrument is unusual. The strings are fed through from the back (the back recess is a little untidy), and appear at the front, on a bridge with individual string adjustments similar to those used by Fender, but of a rather better make. This bridge is covered by an equally well-made hand rest. Also the neck is bolted on with four screws and a back plate — again a departure from Gibson conventions.

It remains only for me to describe the electronics, which are even more unusual than the rest of the guitar. There is a single



pick-up which slides on a movable part of the front panel giving different tones in different positions, and although the system works well, its potential is limited by the small amount of slide available. Even an inch greater movement towards the bridge would add to the variety of tones available.

The pick-up itself is encapsulated, which makes examination difficult. It appears to be well screened but not hum-bucking, has four central magnetic poles and seems to incorporate internal adjustments for better string balance. Tone and volume controls work smoothly throughout their range, but the screening around them, (like most modern solids) is totally inadequate to cope with some combinations of high impedance amps and modern theatre lighting.

# Guild F50 Blonde

Retail Price £128.00

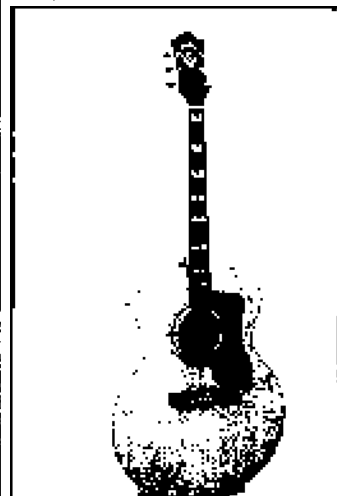
It happens occasionally that I take a sufficient liking to a guitar to be reluctant to sell it when it arrives in my shop. The Guild is a true Showman's guitar, a big loud

brassy blonde — and nice with it. It is difficult to write a critical assessment on something which has few faults and is correctly and accurately produced for the job which it has to do. Its high price is justified by its ability to sound equally good whether played gently or hard. Technically, it has a wider dynamic range than almost any other acoustic. If I were to make any change, it would be 2mm on the width of the neck (a personal taste).

Back and sides are made of laminated flamed maple, which is almost essential on a guitar of this size for use on stage, as larger guitars tend to get more than their fair share of knocks. The back is domed like a cello-back (as with many of the recent Guilds). The fact that this pattern of back does not require struts, seems to improve the quality of tone on a large guitar.

The top is high quality solid spruce, and bridge and fingerboard are ebony. While the inlay in the fingerboard is of high quality, the standard of finish on the frets and fingerboard could be improved considerably. The bridge-saddle is beginning to lean forward because of excessive string angle and/or too high a saddle. Incidentally, the patterns visible in the fingerboard inlay are caused by counter-inlaying coloured abalone shell into the real Mother-of-pearl blocks. The head inlays are also real Mother-of-pearl. Unfortunately, if Guild wish to imitate an ebony head-facing with black paint, they really must learn to scrape it off the white head-binding in a tidy and professional manner.

How about it, Guild, exactly the same guitar, with fewer stripes around the edges, a plain ebony fingerboard with small simple dots front and edge, better finished frets, nickle-plated Schallers instead of gold Grovers, simpler head decoration, and a proportionately lower price? I think a little research would show that the simpler model should have a slightly wider fingerboard. It is fair to say that an economy version — the F48 is available but this has a mahogany body. Three different variations of the F50 are available with varying specifications but just a simpler version of this guitar would be ideal.



## Gauss Speaker

Retail Price £77.00

It's never been as important to choose the right loudspeaker as it is today. The reason for that is that the choice is so wide. Just a few years ago, the British musician was offered an alternative of just one or two driver units as options and if he wanted a particular cabinet he was more or less forced to accept whichever drivers were fitted as standard. Today, the production of very high quality, high power driver units has developed to a fine art. In America there has been something of a race to develop the ultimate in ultra-powerful driver units and one of the market leaders is undoubtedly the Gauss driver from Cetec.

We were loaned the lead guitar 12-inch driver, model number 2841, by the U.K. arm of Cetec for evaluation.

The speaker appears to be extremely heavily built, being cased in a strong cast-aluminium frame which has eight wide legs supporting the cone. The heavy magnet is housed in an attractive finned metal housing and the centre coil is topped with a dural dome for metallic looks and improved high frequency response. We particularly like the fact that no wires could be seen loose anywhere, even behind the cone, and the speaker leads are clipped onto the speaker by spring loaded clips which automatically grip flex ends and which are situated at 180 degrees around the speaker casing. We were a little worried that springs might go after considerable usage and this would mean some difficulty in making a connection.

Cetec suggest that the useful frequency range for this speaker is around 40 c.p.s. to 5,000 c.p.s. and when used in conjunction with a crossover unit operating around 3,000 c.p.s., the speaker did certainly give a fidelity that one might expect from a purist hi-fi speaker rather than a high power instrument unit. Maximum suggested wattage on this unit is around 200 watts. We found that the speaker was happy with a loading 30 per cent up on this for a reasonable period so it would most certainly be useful in a situation where transients are uncontrollable or where peaks are expected slightly above usual ratings.

Used as a complete range speaker, the unit did exhibit a curve downwards towards the top end of the frequency range as might be expected, but we felt that the unit efficiently handled towards the 10k mark without any serious fall off. Considering

this the speaker is well suited to cabinet installation without any need for HF horns for guitar work. The "voicing" of the unit does seem perfectly suited for guitar avoiding the top end harmonics that can cloud a guitar's sound.

We also thought that the speaker had enough going for it in the lower end to be a contender for the high quality P.A. market, an application for which other speakers from this stable are undoubtedly used.

The design on this unit — as with all high-power Gauss units — includes an edge wound voice coil and this is clearly and quickly becoming an important factor in this type of unit.

## Hammond X5

Retail Price £921.00

During the 1960s the Hammond organ was the ultimate instrument for group organists. Its tone and drawbar facilities make it the obvious choice for professional musicians in both rock and jazz.

Artists like Jimmy Smith, Georgie Fame, Graham Bond and John Mayall all extemporised on Hammond and for that reason the brand was the market leader. There was one problem — the size of the organs.

Many ingenious answers to the problem were suggested but the one that the U.K. accepted was the "split". Hammond offered to saw their famous M range of organs in half and most travelling musicians accepted the compromise and staggered around carrying dismembered organs.

Towards the end of the decade other electronic organ manufacturers — freed from size and weight limitations by the advent of the transistor — introduced sophisticated portable organs that slowly lured players away from the bulky Hammonds. This progression was accentuated by Hammonds themselves, who produced a range of console organ aimed more and more at the domestic "home player" market.

For that reason behind this outlook one has to look to the American market. For years it has been dominated by the home organist and Hammond's factories around Illinois were kept fully occupied turning out domestic models. For that reason the professional gigging player was forced to either buy second-hand M Hammonds or other makes.

Now Hammond has announced the introduction of two portable electronic organs. These are made by Hammond's Japanese operation, Nihon-Hammond, and the introduction of LSI's (large scale integrated circuits) has given the company the potential of packaging the full drawbar Hammond sound into comparatively small organs.

The X-5 is the larger of the two organs announced and retails at just under £1,000. This may sound expensive by the old £600 standards of the Ms ten years ago, but a similar valve based organ would certainly cost a couple of thousand now. It's a two manual instrument (both 44 note keyboards) with nine pitches on the top keyboard and seven on the lower.

Jimmy Smith made a real feature out of using key click as part of his Hammond sound. Transistor circuits smoothed out this "defect" and for that reason many players missed the bite that belongs with the Hammond sound. The X-5 has a built-in brilliance control which at its highest point can produce the very distinctive click on the attack and at its lowest rounds out tone starting sounds all together.

A 35 watt solid-state amp is built into the organ but no speakers are provided and not unnaturally, Hammond suggest that the organ is at its best when mated to a 760 or 825 Leslie rotary tone cabinet. Obviously the organ can be hooked up either to an ordinary speaker cabinet or to a slave amp.

In addition to the drawbars for the upper and lower manuals there is also a 16/8' drawbar for the bass pedal which are supplied as standard. Other tone variations can be obtained by 3 pre-sets for the upper keyboard and one for the lower. Features such as reverb, vibrato, and Leslie speed are also built in.

The organ plays as delightfully as any Hammond. It's a pleasure to play the drawbar system and although a player takes a little while to master the drawbar system, the result is well worthwhile. Despite the trend for offering every sound on a pre-set, most professionals will prefer drawbars because of the flexibility and Hammond have obviously realised this point.

A most attractive and practical feature of the organ is the heavy chrome handle which runs the length of the organ below the keyboards. This makes carrying the unit reasonably easy and in no way interferes with the playing position.

Composed of three basic units, the organs assemble and pack down very quickly. The keyboard unit measures 44½" x 26" x 9½" and weighs 101 lbs. The pedal unit is 44" x 21" x 5¼", and weighs 41 lbs. The leg's weight is 30 lbs.

The sound of this organ is very much Hammond. It's slightly cleaner than the organs of old, even with the brilliance control full up, but that is probably due to the transistor amplification. Perhaps amplifying via a valve amp would return the dirt that adds full colouration to the sound.

## Rocker Headphone Amp

Retail Price £14.65

The need for small private sources of amplification has grown as the sophistication of the music industry has grown. The days when a band would huddle in a dressing room desperately waiting for gaps between DJ's records to try and get a string in tune have gone. Musicians insist on having the time and facilities to tune properly.

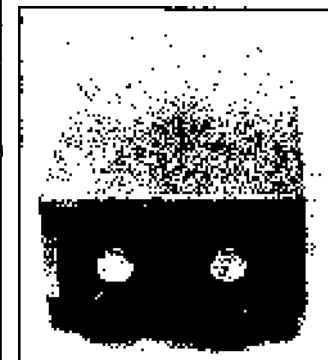
Now and again circumstances deny usual facilities and the need arises for a headphone guitar amp. There are also many other uses for a small transistor amp.

The Rocker is a small headphone practice amp produced by a new electronics company, Etime, of Sunderland. It's contained in a strong plastic case and there are controls for gain and, unusually, tone.

At first sight it is surprising that Etime have built the unit to be powered by two PP9s or VT9s when a smaller battery might have done the job. But in practice the batteries act as ballast and as well as giving long life they also keep the unit stable.

The amp is automatically switched on when a guitar is plugged in and the amount of gain available is reasonable but not great.

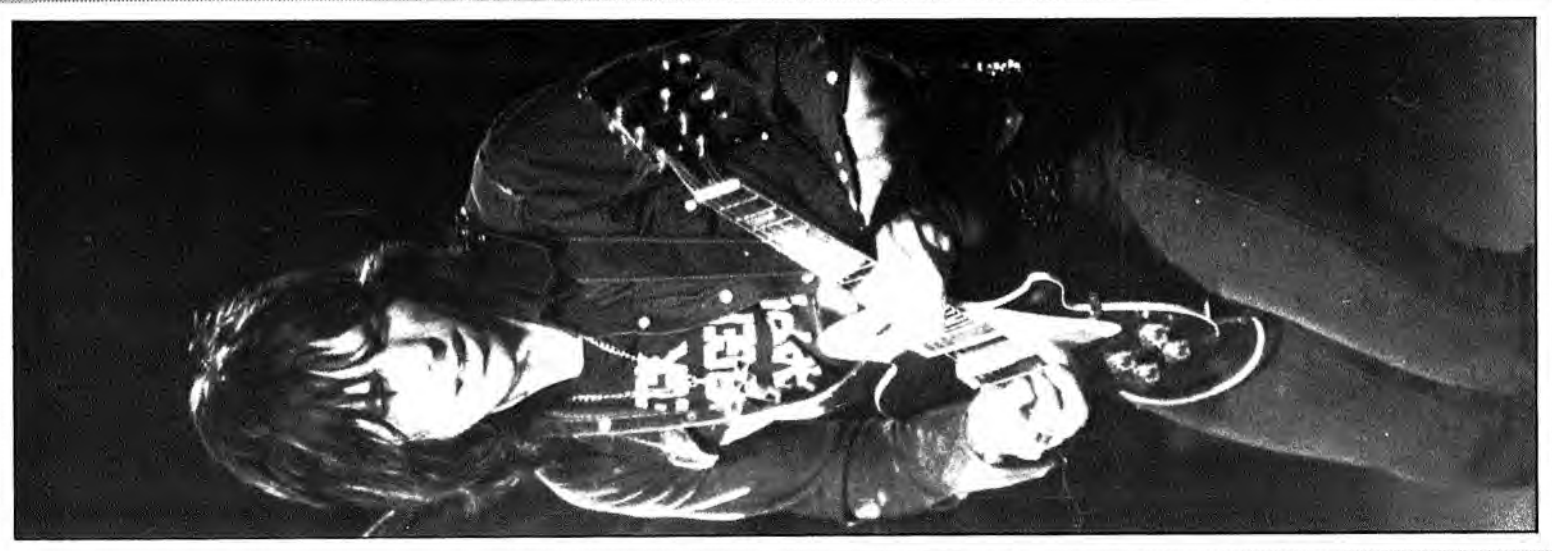
The circuit is well constructed using an IC as the major component but we felt that the battery connection wires should have been held by a security clip before they are soldered to the PC board — particularly as the batteries are heavy and they could potentially fall out of the case and pull off the connecting wires. The pots are mounted in a position which allows the tags



to be directly soldered to the PC board but the earth connection is made to the pot bodies by a thin un-insulated wire which could easily get broken or damaged, especially as the user has to get regular access to the interior for battery renewal.

Another point that would have helped would have been self-retaining screws for the casing. It's easy to drop them and if they were self-retaining like the central screw in 13 amp plugs life would be a lot easier.

# JEFF BECK



# JEFF BECK

*Jeff Beck's reputation as the world's greatest guitarist, the planet's most erratic musician, and the Universe's most elusive character precedes him. With a career full of brilliant rock albums behind him, Beck currently fronts a semi-rock/jazz four-piece which virtually defies categories but certainly doesn't strictly qualify as a rock outfit. Jon Tiven cornered Mr. Beck in Springfield, Massachusetts and popped the question: "Would you like to do an interview." "Not really, but go ahead anyhow" replied Jeff.*

*Do you feel your playing changes when you switch from your Gibson Les Paul to the Fender Strat, and if so, how?*

Quite so, the Strat's not so slippery and you can't do so many tricky things on it. The fingerboard is much slower. The Strat has a more wiry sound with less punch.

*Why are you using Fender amps?*

Christ knows, they just happened to be there. As long as you've got enough level, I'm not worried about what amplifier I've got, as long as they don't blow up. Quite honestly, the sound is pretty much the same. Perhaps an expert can tell the difference but I couldn't.

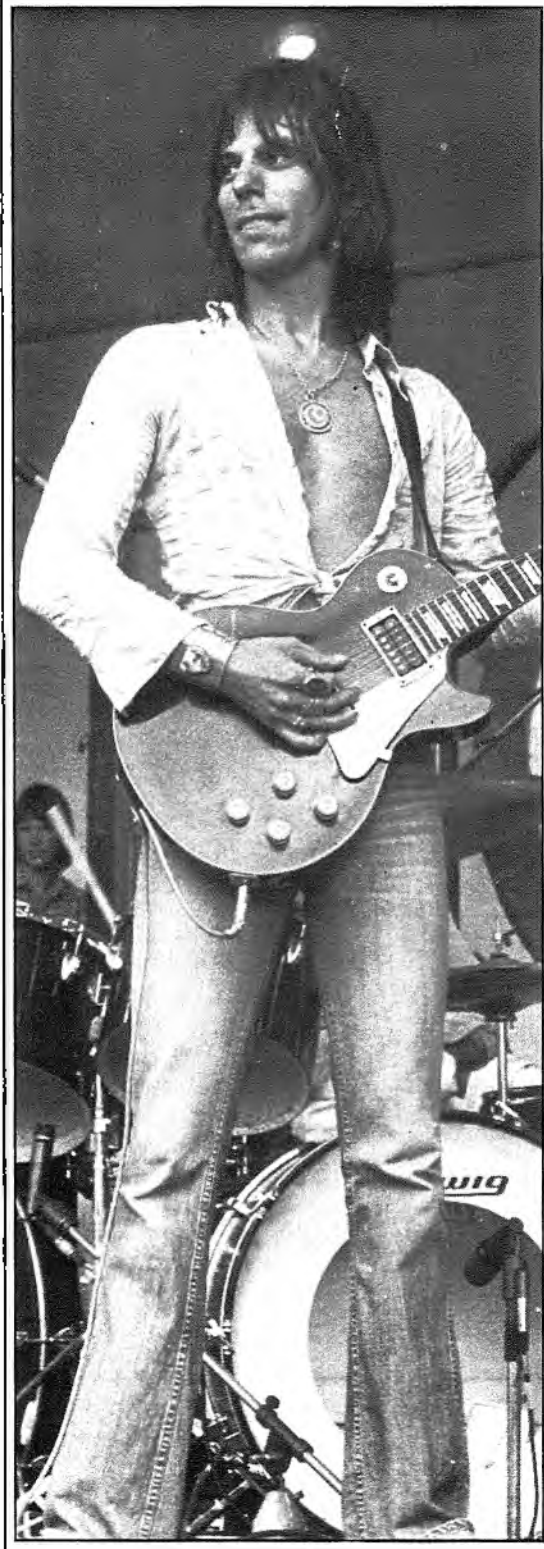
*How do you feel about playing guitar when you know that every budding musician worth his salt is going to listen to whatever album you make and learn every lick?*

It's great as long as they don't just play like that. As long as it acts as an encouragement for them to learn how to play, or just to play. I can't see the point in groups playing other guy's songs or solos note for note.

*But there are a lot of guitarists around today who play, or try to play just like you, the obvious example being Mick Ronson. How do you feel about that?*

Yeah, I know he does. But he appeals to a part of the public that I don't. If he was pulling my audiences I'd be annoyed, but as long as he pulls his own, I'm not.

*When you went into the studio to do the new album, did you have songs in mind,*



*or what kind of preparation had you made?*

We had some sound tunes to play . . . I didn't have any arrangements, or all the chords. Like Stevie Wonder goes into the studio with everything, right down to the last topping, but I'm not a believer in that. I like to go in and come out being really knocked out with what I came up with in the studio. Max Middleton found the musicians for the album. The drummer's brilliant, he's only nineteen and plays a 5/4 time signature like he's falling off a log, scary really.

*Did Max put this band together, or did you?*

No, I did. I've always been a friend of Max because he's very stable, and you can't afford not to have someone like that around. You get a star, a looner, a poseur and right away he's trying to steal the limelight.

*What have you been doing in the period between BB&A and this?*

Looking for players . . . looking for a bag to be in. It's very hard nowadays, it's bloody impossible. You've got 500,000 groups in one small area alone all raping around, trying to rape you of ideas. As quickly as you come up with 'em, they rip 'em off. It's like the fuzzbox thing, you get a fuzzbox and all of a sudden there's a factory making fuzzboxes.

*Were you thinking about a band during the making of the Blow By Blow album?*

No, the main concern was to get the album finished without having to think about a road band. I just wanted to break away from the business, it's such a big, phoney, rubbishy business. It's not a business, really, a business is when you sit in an office and wear a suit. It's an entertainment.

*I heard that at one point you were thinking of joining Sly.*

I sussed out the scene and it didn't look good. He was going to produce BB&A, and then I told Sly that I wasn't into the BB&A thing and he dropped his interest in it. He found out that I wasn't inter-

*continued on page 22*

# JEFF BECK

ested, so he wasn't interested. I hung around for ten days with Sly, and he said 'Do you want to stay at my house?' and I said 'Yeah' and the next day I got on a plane and went home. That's the story.

## *Was BB&A a joke from the start?*

Of course it was. You don't form a band that's five years obsolete and take it seriously. I wanted to show people that that band wouldn't have made it . . . some nights it was alright for what it was, but most of the time I was totally frustrated. I couldn't hear myself play because Tim was so loud. Then I was making terrible mistakes and he was just groovin' on not even looking at me. I was just fumbling. I mean, I can be heavier than any guitarist if I want to be but I have to have the push behind me, I can't have people treading on me. You're in a band, you have to fight together and not against each other, you fight and pull in the same direction. Carmine was fine, but Tim's moods and mine were just impossible.

## *What was it like working with George Martin?*

At that time he was very helpful. I wouldn't say that he'd be of much use on any further albums, not the way he was on that one. When you haven't been on the road for two years you need something really subtle and together to put you back on the track. To get you back in the swing of it. George is a bit of everything, I was very impressed with the way he handled it. At first I didn't think he was doing much, but the album seems to be picking up in sales, so I suppose his job is done well.

## *It's a very clean album . . .*

You can hear everything. That's what I like, I don't like fuzzy, six billion watt rock 'n' roll riffs that just go in one ear and out the other. It's a real listening album, you can sit and listen and hear something else every time, and it only took twelve days to make. We had a week in a rehearsal studio and we'd gotten five numbers done, a couple of them in the first two days, and it was going so well that it snowballed from there. Apart from the mixing it was an enjoyable album to make; the mix can murder the thing, as everybody knows, because the mix is what people listen to, not the 16 track blasting out.

## *Did you originally enlist George because of his involvement with the Beatles?*

No, that was a very slight attractive point about him. I bore it in mind that he had done the Beatles thing, and therefore assumed that he'd be confident enough to do anything else that came along. But I didn't specifically choose him for that reason, I just wanted someone level-headed, not a young with-it whipper-snapper who just wants to take the money. He's not a square by any means, he can sit and criticise your music and praise it when necessary and that's what a producer should do, and there aren't many of them about.

For my sort of stuff it's very difficult to find a producer, because I don't come in with sheet music and say 'Right, where's the artist?' and get in and get out. I wait for something to happen and pick up the threads.

## *How was Don Nix as a producer?*

When he was awake, you mean? Most of the time he was fast asleep. Or out on some rocking chair outside a ranch in Dallas with his cowboy hat slumped over his head. He's not a producer.

## *You did a BB&A album with Jimmy Miller, didn't you?*

That rubbish is still in the can. The sound was appalling and the material was shitty, so I didn't see the purpose of releasing it. The first BB&A album didn't do anything for me, it did nothing for my career whatsoever. It sold a lot of albums, but that's about all. We tried to produce BB&A ourselves after the first failure, that time with a bloke called Geoff Haslam. It was equally disastrous.

## *When did you produce the Upp album?*

Slightly before I made *Blow By Blow* . . . actually quite awhile ago, really, almost two years ago. They're very amazing, nice voice. It was great, it was the first time I'd been able to lend a hand to somebody that needed it. It was important that they got moving in the right direction. I played down my role as the guitarist, I didn't want to make a big splash about it.

## *What kind of things do you listen to at home?*

I only play about one or two tracks of an album, and then I make up a cassette of my own favourites. Stevie Wonder. I get fed up with just about everybody.

## *Do you listen to any guitarists?*





No, most guitarists annoy me. I listen to Stanley Clarke and Jan Hammer. I like real musicians, not the poseurs who buy suits and fancy guitars. There haven't been any good guitarists around for the past five years, no one really emerging. Mind you, I don't get to see that sort of talent anyway, all I see is rubbish . . . I turn the TV on and it's rubbish, and we have no radio in England, just a little noise that comes out every two minutes.

*The Bay City Rollers . . .*

I don't mind that, there's got to be a market for kids under three. 24 hours a day airplay for the Bay City Rollers . . . and they can't play a half-hour of good music, even Beethoven or something. And Pirate Radio, the first few weeks they're on the air they play some really way out sounds, and all of a sudden you start getting dropsys from the DJs and the rot starts in. And they think we don't know about it.

*One of the things that's always amazed me about you is your ability to stay on top while moving in new directions.*

*What inspires you to play?*

It's in your blood, there's nothing like going on stage and blasting away. And to have it *enjoyed*. It wouldn't be so good otherwise, if no one liked it, I wouldn't bother. I'm only here because I hope people like it. If I was twice as good and there were a dozen people in the audience that hated what I was doing, I couldn't go on. In a crowd of 20,000 I'd be upset if there was one guy in the front given me the bird. It goes to my heart, I'm a human being. If it's shitty don't boo, just walk out . . . it hurts a lot more if people are booing than if there's nobody there.

*Do you play a guitar a lot if you're not on stage?*

Yeah, but there are always things to be done around the house. I've got a bunch of old cars that I play around with. I haven't actually *built* any for two and a half years, but I keep them in immaculate condition all the time. It's a masculine side of me coming out, but it goes out the window when I think about music. I just put grease all over 'em and keep them stored away.

*Do you have a guitar collection as well?*

I used to, but it keeps getting whittled down by these thieves. I've got two old Esquires, one with a neck and one

without. I've taken off the old pick-ups and put Gibson Humbuckings on, it's just a bit hard to play, like a Strat. I'll be playing a Strat later on in the tour, but as it's just the beginning of the tour, I thought it would be best to stick with an easier guitar.

*Do you ever listen to your records after you make them?*

Nyah. Max plays the album all the time, and it gets on my nerves. By the time you've finished it, you've heard it enough times, and then you go through a period when you don't hear it. After that, when you first hear it, it sounds nice. The secondary period you listen to it, and then you don't want to hear it anymore. And then you've got to play it onstage.

*This is the first album in awhile where you haven't written most of the material yourself . . . how does that feel?*

Actually on the early albums I didn't always write the tunes myself, we did that for the simplicity of publishing, I'd publish the songs and give them their share . . . rather than having it split up because they didn't have a publishing deal. Most of the songs were me and Max.

*How do you feel about one of your former trainees, Ron Wood, playing with the Rolling Stones?*

I don't want to talk about it. There's no music there. As you get older you just don't want to hear that rubbish anymore. The Rolling Stones are finished, as far as I'm concerned, and they admit it as well. If only someone would play on their records and show them how to play some more chords, that's all. It was great when they first started, but ten years later they're still doing the same thing.

*Ever hear a guitarist by the name of Tommy Bolin?*

Yes. He's very good. Plays really nicely on the Billy Cobham album. Sometimes sounds a bit like me.

*A little like you and a little like Ritchie Blackmore as well.*

There's always that danger because Blackmore and I were playing the same sort of stuff twelve years ago, when all these other groups were playing at weddings with bow ties. That's why I like that scene, I'm glad it's still around. It's very easy to make records and get all the girlies, but we were doing that before any of them. □

# DISCUSSING DECIBELS

by Bruce Gibbs BSc

Recently we discussed decibels and found that they are just a way of expressing the ratio of two power levels. They do not say how much power, but only how one power level compares with another. The usefulness of this may not be instantly obvious but the following examples should clear any doubts.

If we have a musician making a sound and an amplifier reproducing it, providing the amplifier has sufficient power handling capability to avoid distortion, we would not normally be interested in the exact power level of the music signal, but only in the way the output is related to the input. If we boost the treble we want to know how much it has been boosted compared with the 'no boost condition'. Even when we wish to know about background noise, the absolute value of sound level due to background noise is of less use than knowing how loud it is compared with the signal. In each case we have the ratio between two power levels which could be expressed in dB.

In our discussion we found that if two power levels are the same we could express the ratio as 0dB. If one is ten times bigger it is +10dB, if 100 times bigger it is then +20dB et cetera. Similarly, if it is 10 times smaller, that is -10dB, or, if 100 times smaller, that is -20dB and so on. Another figure worth remembering is that 3dB is a power ratio of 2. +3dB is then twice as much power and -3dB is half as much.

The following list is an explanation of some of the expressions used in manufacturers' data - there are others but once the more common ones are understood most of the others can be worked out by using common sense and sometimes a little intuition.

## Bandwidth -30Hz TO 16KHz (-3dB)

This means that the equipment in question has a frequency range over which it will work. If you use signals of very high or very low frequencies the output power for a given size input will fall as you get towards the end of the band. The points at which the level will have fallen to half power (-3dB) are 30Hz in the low and 16KHz at the high end. The response at the ends of the band does not usually cut off sharply, so only by deciding how much fall off can be tolerated can you decide how much of the band can be used. Sometimes -0.5dB or -1dB points are quoted. If a band width figure is given without saying how much fall off in power is accepted as being within the band then the -3dB points are implied.

## Treble Control - +13dB@10KHz

This means that frequencies in the high treble (10KHz) can have their power level changed from 20 times the normal power (+13dB) to 1/20th of the normal power (-13dB) by the treble control. Signals of frequencies nearer the centre of the audio band will be boosted or cut by proportionally smaller amounts.

## Signal Level = 0dB m

This is a case where you must know the convention before it means anything. 0dBm means a power level of 1 milliwatt (1/1000 watt) to a signal level of 0.775 volts.

Most pre-amplifiers are designed to feed this signal level out and most slave amplifiers are designed to give full output when 0dBm signal level is fed in.

## Signal to Noise Ratio 86dB

This means that the 'noise power', when there is no signal present, is 86dB below the maximum power output that the equipment will give. 86dB is a power ratio of 400,000,000 to 1; that is a 400 watt amplifier with signal to noise ratio of 86dB will give 1/1000,000th of a watt noise power output.

S/N ratios of less than 50dB become objectionable.

## Sound Level of 80dBA

The convention here, 0 dB, is the threshold of hearing, which has been chosen as a sound pressure level of 0.0002 dynes per cm<sup>2</sup>. The sound level is the number of decibels above this reference.

The 'A' means that the measuring instrument used has a frequency response which has been modified to account for the ear's uneven sensitivity to all frequencies.

Sound levels of greater than 95dB above 0.0002 dynes/cm<sup>2</sup> can cause permanent ear damage.

You will also find dB used to:-

- (i) define the directional properties of microphones, i.e., how much signal output the mike gives with the sound source behind it compared with that with the sound source in front.
- (ii) the sound distribution patterns from speaker boxes.
- (iii) gains of amplifiers and many other things.

Once you understand dB's most of these are self-evident but one or two (for example, transistor noise figures) are not. However, you are unlikely to meet these in normal music circles. □

# NEWMAN ORGAN STUDIOS



WERSI 100T Professional Portable Organ.

A true portable organ weighing only 34kgs. Providing full rich organ sound for the travelling musician. Specifications include drawbars, three pitches of percussion pedal sustain and the unique Wersi Phase Vibrato which gives a full theatrical tremelo with the speeding up and slowing down effect of mechanical tremelos.



For full details of the finest portable organ in Europe now available in Britain contact:

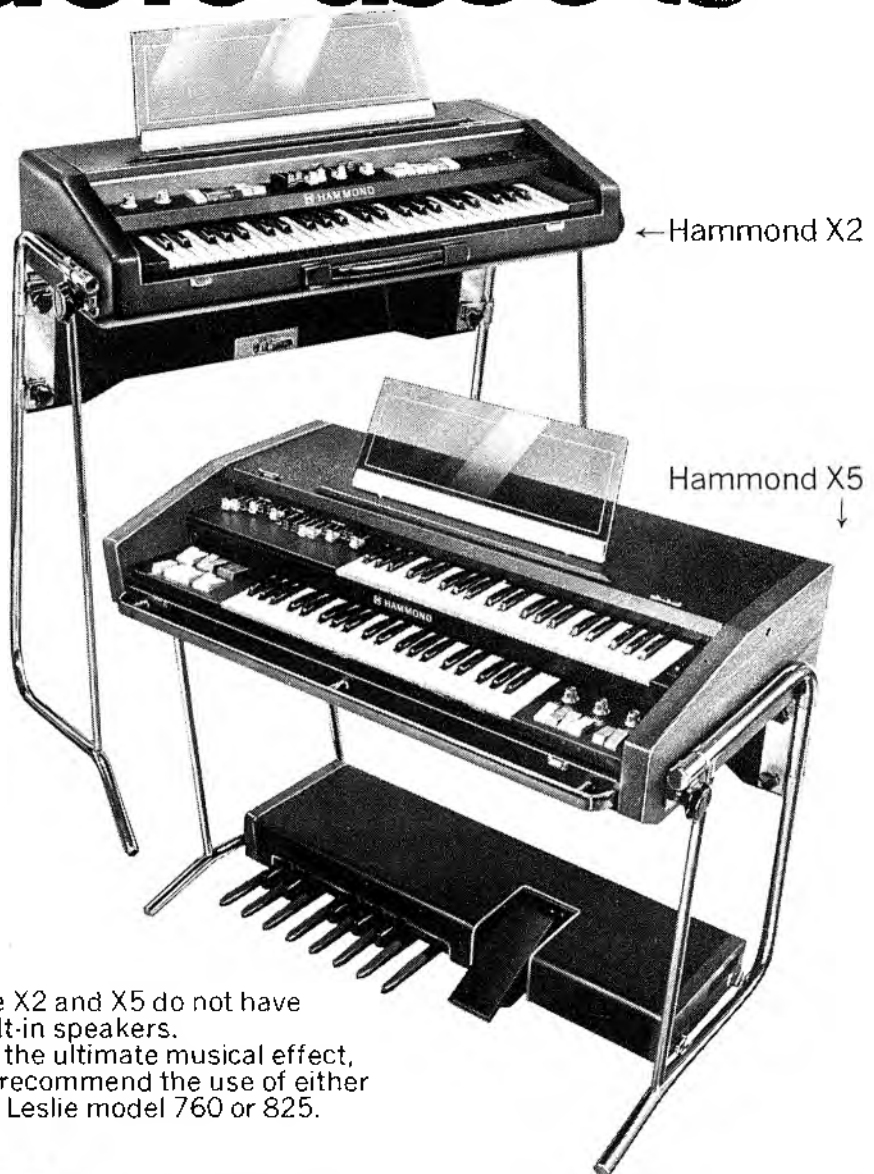


# Hammond portables movable assets

No more need to put up with 'Second best'. Here are two portable organs with genuine 'Hammond Sound' which means good news for the organist 'on-the-move'.

Both the X2 and X5 offer the 'big organ' performance benefits of Hammond tonebars and touch response percussion yet can be easily dismantled for transportation.

Whether you are just starting out 'on-the-road' or already topping the charts, here are the models tailor-made for you.



The X2 and X5 do not have built-in speakers. For the ultimate musical effect, we recommend the use of either the Leslie model 760 or 825.

 **HAMMOND  
ORGAN**

For illustrated brochure and address of your nearest Appointed Dealer, write to:-  
Hammond Organ (UK) Limited.,  
Deansbrook Road, Edgware,  
Middlesex HA8 9BB.

## Working Abroad



Touring and playing abroad is a proposition usually treated in a cavalier fashion by British bands. The myth of the Beatles still persists: like prophets, bands are seldom without honour, save in their own country, and easy and immediate riches in Europe are both a sure thing and the first step towards success for a British band.

If it ever did happen like that, it doesn't now. With the decline of Sterling and the rise of the Deutschmark, Franc, and Guilder even travelling in Europe is no longer the relative lark it once was.

It's more a business than ever, and playing dates or engagements in Europe now demands attention — to balance sheets, schedules, contracts, and a hundred details that can mean the difference between profit and loss.

Europe is still a lucrative place to play, all that's changed is the standard — if you want to make money, or break even, it will require some care and attention.

With five major festivals (Turku in Finland, Roskil in Denmark, Mannheim in Germany, Pink Pop in Holland and the Jazz Bâizen in Belgium), hundreds of summer concerts and countless engagements and club dates to fill, scores of British bands will be going to Europe, and a good number of British bands will also be hitting the U.S. for the first time.

*IM* have contacted a number of people in the business who are professionals: their very livelihood depends on playing and arranging gigs on the continent and in the States, and then seeing they're carried out, at every stage.

This is intended as a guide to all *IM* readers who may have been to Europe or North America a dozen times, and to those who are going for the first time. Most of what is repeated is worth repeating . . . and what's not needs no explanation at all.



## Personal Preparation

Advising people on personal preparation for a foreign tour can come dangerously close to an insult. So many of the precautions necessary are obvious, and at the same time so basically vital, that they are worth restating briefly, even at the risk of insult. Passports and visas must be in order, injections, vaccinations and inoculations have to be certified (depending of course on what countries you're going to), cases and personal belongings have to be packed and checked, driving licenses in order, and all the arrangements for keeping up your home — cheques for the rent, H.P., stopping the papers and milk, leaving a forwarding address where you can be contacted in an emergency — have to be seen to, the same as they must be for anyone going abroad for a month or more.

Jon Camp, the bass player in Renaissance, mentioned these and a number of others. "As far as my equipment goes," he told *IM*, "I make sure that my basses (two Rickenbackers — a standard and a fretless model) are cleaned, the electrics seen to, and that they're restrung. I also put new batteries in the effects pedals,



and check to see that I have new leads. The majority of the technical things I leave up to the roadies."

Jon agreed that it is most important to do anything that can be done before leaving. Nicky Sholem of Renaissance's road crew agreed. "It's not so much that you can't get replacements in Europe — it's just that you don't usually know where or how to get them. Sometimes a promoter does; if it's a replacement from a big international manufacturer like Yamaha, a local outlet can be helpful."

But usually, if the amplifiers, P.A., bins, horns, mikes, mixer and whatever else have been checked carefully before going, it's obvious but good advice to carry a collection of spare fuses, valves, light bulbs — and even amps, if you have them. Plectrums, spare sets of strings, drumsticks, and nuts and bolts are likely to come in hand.

Basically, though, personal preparation isn't much different from the sort necessary for any long tour in this country. The main difficulties are those imposed by foreign governments and standards, and the strain of living in a foreign country.

## Agents

Stories about infamous agents rank alongside the countless stories of management, promoters and the other "villains" of the music world.

Some of them are justified, and some are not. To separate the good from the bad, you have to have some idea of what an agent can reasonably be expected to do for you. This is never more true in a foreign tour — where the distances, and necessarily, the disappointments, are greater.

It's an expensive proposition to set up a tour or a series of club dates on the continent. You are paying for the agent's contacts, experience and knowledge, as well as his telephone bills. Agents can be expected to contact European promoters, find dates and venues, and see that the contracts are exchanged. If he wants to stay in the business for very long, he has to satisfy everyone.

Cyril Van Den Hémel is a European agent for British Talent Management. "Most agents," he told *FM*, "are constantly wheeling and dealing. I'll get you so and so if you'll take so and so in return, and help me book so and so' that sort of thing." This of course leads to a lot of bad deals for bands, but good agents are working for both parties.

"I see my job as booking venues, buying ads and posters and generally representing the management in Europe. I know almost all of the promoters I deal with personally, and I know most of the venues as well. If the venue is not right, too small a stage or electrically inadequate, then I don't accept it."

Cyril also looks after the exchange of contracts (which, he recommends should be undertaken in English law), sees that the money is there (usually 50% up front), and tries to make it clear to both parties who is paying for what.

In return, there are some things that an agent must expect from a band. "Flexibility is the main thing," he continued. "Sometimes there is no way I can avoid having a last minute change of venue. In a case like that, you can only hope that a band will agree."

## Union

The Musician's Union should always be consulted before undertaking engagements

abroad. Jack Stoddart of the National Office recommends that members submit contracts to the union before they are signed. "We can't enforce our minimum rates abroad, but we can advise our members if the amount is inadequate." Ideally, if it's an engagement, you should try to see that adequate and decent accommodation is included in the contract, and the union will so advise its members. "We are always willing to listen to a member's problems, and to approve and advise them on contracts."

It is in going to the States that the Union's power is brought fully to bear. The Musician's Union here and the American Federation of Musicians operate a clearing house for their members.

Basically, a promoter who wants to bring over an American band must satisfy the Musicians Union here that an equal number of "man days" will be allowed for British bands in the States. If an American four-piece band were to come over here to play ten dates, the promoter would also have to agree to arrange 40 man days of work for British Musicians in the States within a reasonable amount of time. So either one forty-piece orchestra, playing a single American date, or a solo artiste doing 40 dates, or some combination equalling 40 "man days", would have to be arranged.

If that can be agreed to, then the Unions will make a favourable recommendation to either the Department of Employment in this country, or to the Department of Labour in the U.S. Refusals by either ministry after a favourable union recommendation are rare, except in the obvious case of arrests for drugs or political activity. The only possible hitch is if you're not a member of the union

## Carnets

The most complicated aspect of touring for most groups, whether in Europe or the States, is the Carnet. Groups have landed in European ports and been sent back or charged hundreds of pounds worth of duty for their instruments and equipment simply because they lack these vital documents.

Carnets are issued by the Chambers of Commerce of countries subscribing to an International Convention, which includes the U.S., Canada, all the Scandanavian, and Iberian Countries. They are acting in this capacity more or less directly as an agent of their governments. The British head office is at 69 Cannon Street, London EC4N 5AB (tel. 01 248-4444), but carnets are available from the Chamber of Commerce in most major cities.

The function of the carnet is to prevent the avoidance of customs duties of goods brought into the country temporarily, but it also prevents you from paying duty on your gear every time you cross a border.

The first step is to fill out the official application form, provided by the Chamber of Commerce and to pay the issuing fee of £15. The form is an acceptance of liability for the duty on any goods which you take into a country and don't bring out with you, and a liability to repay the Chamber of Commerce for any costs they incur which result from claims made by foreign customs authorities.

Once that's done, the problem of security arises. You must leave an amount — in cash, banker's draft, or a guarantee from a bank or insurance company — equal to the sum of the payable duty and taxes on all the goods you bring in, plus an additional 10%. This is returnable when you return your carnet, provided it's been completed properly.

The third step is to fill out the carnet forms. You will receive a green cover, a pair of yellow forms — one for leaving Britain and the other for returning through British customs — a pair of white forms for every country you pass in and out of during the tour, and a pair of blue

# Working Abroad

forms for every country you'll be crossing in transit, which effectively means every country you're playing in as well.

The front of these forms are fairly straightforward — it's the back that causes the difficulties. You MUST literally fill in the trade description, serial number or identifying mark, number, weight, value and country of origin of every piece of equipment you take with you on the back of each form (this does not at present include your vehicle, unless it is a mobile studio or other vehicle necessary to your profession). In addition, the equipment you take which is manufactured outside the U.K. requires a statement on your part that U.K. Customs Duty has been paid.

It is absolutely *imperative* to make sure that every thing is included on this list, because if a foreign customs officer makes an inspection and finds something *not* on the carnet, he can make you pay the duty on it. Disposable items such as cleaning materials, and — perhaps arguably — spare fuses, plectrums, light bulbs and the like may not have to be listed, particularly if their value is clearly minimal. But it's not enough to list "Tool Box and tools", as one band found out recently. You must itemise everything substantial if you want to pass through customs quickly, cheaply, and have your deposit returned when you get back.

Once you've got the list together and the carnet is issued, you can't amend the list without facing charges for the duty on the additional items.

Because you must have a set of forms for every country you're passing through, you have to notify the Chamber of Commerce of your itinerary. Thus, you should give the completed green, yellow, white and blue forms, the application form, the issuing fee of £15 and the cash, banker's draft or bank or insurance company's guarantee for the security to the carnet office. It takes AT LEAST 24 hours for them to validate your documents.

When you do receive the validated carnet, sign the cover. If you have the time, British Customs inspectors will come to you and carry out an inspection, but given the schedules most bands work under, it's more likely that they'll check you out at your port of departure. Once that's done, they tear off the relevant form (in this case, the yellow exportation form) and leave you with a counterfoil. YOU MUST make sure they sign and stamp the appropriate counterfoil at each border to facilitate your exit at the next border. If a counterfoil isn't stamped, they can hold you at the next border and make a claim for duty. It may mean a delay in the return of your deposit or security, a reduction of it for duty and administrative costs, and an additional fee.

Customs men can be awkward and it usually helps if you're pleasant, help them in every way possible, and show some kind of respect. But do make sure that they sign and stamp the counterfoils.

If you follow the rules, you shouldn't have any trouble. In theory they can make you empty your gear onto the pavement and go through it piece by piece as you enter France, again as you exit, before you enter Germany, and as you exit, and so on but that is rare. Most of the time, they will just examine the carnet, perhaps open the rear of the lorry or van, and then stamp and sign you on your way.

But obviously, there are a few warnings that must be made. On the whole, British customs are pretty good when you go and when you return from Europe, and also when you go to the States. It's when you come back from the States that you run into trouble. Because of the reputation of American amps, cabinets, instruments and equipment, the Customs Inspectors are careful to inspect what you do

bring back, so it's a good idea not to try and pull a fast one on them — it can result in a fine and/or imprisonment, on top of the duty and tax.

If anyone is going to be using your carnet — a roadie or freight company, for example — you must remember to put their names on it, by sending a letter to the Chamber of Commerce on your headed paper (be it management, agency, or record company) and specifying who they are, the carnet number and your signature. It's also worth remembering that, if any claims are going to be made by foreign customs offices, they have 31 months to do it in. Your deposit may be in jeopardy for that period, so you want to make sure anyone who uses your carnet can be trusted and, if not, subsequently located.

Not every border crossing has the facilities to clear your carnet, so you'll have to check that out before you plan your final route. It's also worth remembering that your carnet is valid for a year — after that time, you can be charged duty at whatever border you exit from.

If any piece of equipment on the carnet is lost or stolen, you can be liable for the duty on it. The safest thing to do is to report it *immediately* to the police, but even that may not prevent your paying the duty. In a recent case in Italy (so the Carnet office informed *IM*), the owner of a racing car which was completely destroyed in a race was, after 31 months of wrangling, finally, charged to pay duty on the car — as scrap metal. For this reason, the Carnet Office at the Chamber of Commerce recommend that you insure all your instruments, equipment — everything on the carnet — and the deposit as well.

When you return to Britain, the prompt return of your signed, stamped counterfoils will be compared with the various customs officers returned forms. When they are all complete, provided there aren't any discrepancies, you get your money back.

Because the customs may check your van or lorry over, you should politely refuse to haul equipment for any other band who's on the tour with you, unless your given their carnet and the authorisation to use it. It may cause an embarrassed silence, but that's better than a law suit or £30 knocked off your security deposit.

## Ferries

If you're not flying, the British Rail Sealink car ferry system is by far the best alternative. The routes are varied and numerous enough to save valuable time in unnecessary border crossings. The routes include: Harwich-Hook, Dover to Ostend, Calais or Boulogne, Folkstone — Dunkerque, Newhaven-Dieppe, and Weybridge-Cherbourg (for enquiries or reservations regarding the Harwich sailings, ring 01-247-9812; for the other services, ring 01-730-3440).

The vehicle restrictions on Sealink Ferries are reasonable and few. If your vehicle is over seven feet in height, you have to declare it in advance — apart from that, the length is almost unlimited, although obviously the longer the vehicle, the more you pay. You also have to pay additionally for the driver and each passenger.

During the high season (June-July), there are as many as 15 sailings a day on the popular Dover-Calais route, from 6.00-23.50, while during the slack period (January-February) there are at least seven.

In the course of our enquiries, a number of people suggested that it was "almost impossible" to get on a ferry during the high season, but Sealink's information office denied that. They did mention that Friday nights and Saturdays in July were difficult on certain routes, particularly the Dover-Calais crossing, but that during the middle of the week there was usually adequate space. Bookings can be made through

the travel agents or at the Sealink offices in Victoria (for the South coast crossings) or Liverpool Street offices (for the Harwich crossings). Sealink recommend that you check in at least 45 minutes before your crossing, which allows for passing through immigration and customs. But if you've got a lot of equipment with you, you might try to give yourself as much extra time as possible — if not when you're leaving, certainly when you're coming back.

## Touring Europe

"Bands are often coming to us and saying 'Can you get us some club dates in Germany and a residency in Spain'," says Dick Jordan of British Talent Management. "It just doesn't happen like that. The money in Germany sounds good, but people just don't realise that you have to just about double the price on everything in Germany. A cup of tea is nearly ten bob. More bands have broken up as a result of bad European tours than anything else." Petrol prices are more expensive in every European country — usually by as much as much as 10 or 15%, and prices in every country with the exception of Spain and Italy will be markedly higher than in Britain. The amount you pay will often be a function of your inability to speak the language. Still, the work and money is there. Mal Linwood-Ross is a professional tour manager, working for bands like Renaissance and Caravan. His job begins after the dates are fixed. "Basically, I have to see that everything comes together. Transport, hired equipment, hotels, ferries, schedules . . . everything."

Mal advises that whatever can be hired in this country should be hired, both for reasons of economy and also quality. You can't always count on European promoters to supply what you ask for, and it's time consuming and usually abortive to try and hire a P.A. or lighting system on the continent.

"Perhaps the most important thing to get straight before leaving," Mal told *IM*, "is who's paying for what. Things like allowances, roadies' floats and wages, additional equipment and hotel bills may be split up between the group, management, agent and record company, and sometimes the promoter is liable for some things, like providing transportation to Radio or T.V. appearances. It saves a lot of hassles if it's clear before you get there."

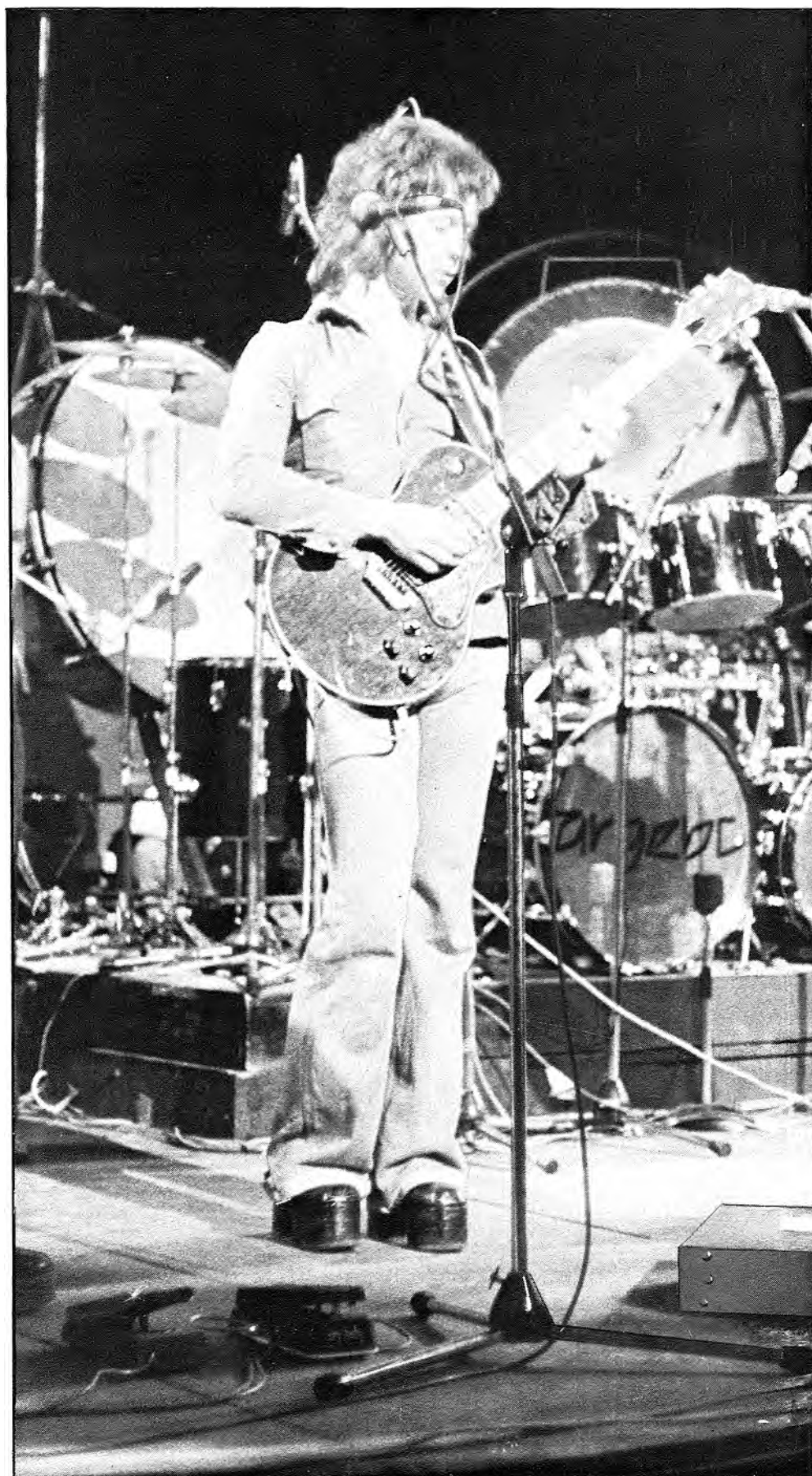
Some of the biggest disappointments come from bands who go abroad and expect their record companies to arrange things for them. Unless there's a product released to accompany your tour, most record companies won't bother to do much — they don't invest money unless there is a prospect of getting a reasonable return. There are exceptions to this rule, but they are few. Most of the work for a band without a product release will be done by a combination of management, agent, tour manager, roadies, and the band themselves. The order depends on how organised you are.

Dick Jordan of BTM: "Keeping on schedule is vital in Europe. If you miss a gig, the promoter often has the right to impound your equipment. When a band has been touring for awhile, it may be that all their profit comes from one or two dates. Miss those, and you'll be lucky to break even. You also miss the exposure, and you can get yourself a bad name with promoters and audiences." ANYTHING which could lead to missed gigs or costly delays and can be prepared for at home should be seen to. The actual travelling is difficult — unless you're hiring trucks and drivers from reputable companies — and, not surprisingly, the Automobile Association can solve a lot of the difficulties on both sides of the Channel.

Membership entitles you to planned routes and maps, information on petrol prices, distances, inspections, customs and driving licences.

*continued on page 31*

# Argent in Concert



John Verity took some care choosing his Yamaha '85. After all, he needed to be sure that his sound was equal to his needs, and he wasn't about to pick a loser. So next time you feel the need for a new instrument be sure to take in a Yamaha.

Just two of the sixteen solids and eight semis from the Yamaha craftsman. Below, the SG45 with

**SG-85**  
Frets: 22  
Scale: 62.8cm (24 3/4")  
Length: 100cm  
(39 3/4")  
Width: 33.3cm (13")  
Weight: 3.7kg  
(8.2 lbs.)  
Neck: Mahogany  
Body: Mahogany  
Fingerboard: Ebony  
Pickups:  
2 (Humbucking)  
Volume Controls: 2  
Tone Controls: 2  
Finish: Natural,  
Mahogany  
Strings:  
Ernie Ball  
"Super Slinky"



one-piece mahogany neck, rosewood finger board and humbucking and pickups. Above, the '85 that John chose. Its hand-finished ebony fingerboard and selected mahogany body are set off by gold-plated fittings.

John had many complimentary things to say about the end result of his search for a solid. About the sustaining power of the pickups: "when I changed guitars to the Yamaha I thought my amp was about to explode..."

**SG-45**  
Frets: 22  
Scale: 62.8cm (24 3/4")  
Length: 100cm  
(39 3/4")  
Width: 33.3cm (13")  
Weight: 3.5kg  
(7.7 lbs.)  
Neck: Mahogany  
Body: "Katsura"  
Wood  
Fingerboard:  
Rosewood  
Pickups:  
2 (Humbucking)  
Volume Controls: 2  
Tone Controls: 2  
Finish: Natural,  
Mahogany  
Strings: Yamaha  
H-1020



**YAMAHA**



philosophy

Sunn's basic philosophy is simply to achieve your satisfaction with our products. That's why we nurture innovative ideas based on your needs. After exhaustive testing, the best ideas are incorporated into our sound equipment, where consistent quality assures you of the very best, all the time.



*In the four years I have been using Sunn Coliseum stacks I have found them completely reliable, both in sound, quality and durability.*

*John Entwistle*

EXCLUSIVE U.K. AGENTS

**B. PAGE & SON (Sound Equipment) LTD.**

10 WOOD STREET, DONCASTER, YORKS., ENGLAND DN1 3LH

Telephone: DONCASTER 69707

*Dealerships available in some areas.*

## Working Abroad

While conventional insurance policies are probably the best bet for bands with a lot of gear, the A.A.'s Five Star Insurance Policy does provide a useful service to anyone travelling in Europe. For a fee of £9.90, you can insure that if your car or van breaks down, it will be repaired and, if necessary, returned to Britain or wherever you are when the repairs are completed. The policy also insures that if the repairs take more than eight hours to complete, each passenger will be allowed a maximum of £100 for fares or the hiring of another vehicle. That could be invaluable.

There are hundreds of tricks of driving that are learned only by experience in driving — from slipstreaming to overtaking on the Autobahn. One thing which might save you some time is to pull off the main motorways just before coming to the border, and passing through customs on smaller roads, rejoining the motorway on the other side. You can usually count on at least a half-hour wait at the major border crossings. On the other hand, not all borders are open all day, or equipped to handle carnet inspections. Experience in the end is perhaps the only teacher.

For accommodation, there doesn't seem to be an alternative to a reputable travel agent, unless you have the time to write to the various Tourist Boards and phone for reservations — and in the end, it would probably cost more anyway.

## Touring the USA

Ironically, touring in the U.S. is usually a great deal easier than Europe. For all the size, there is only one border crossing, unless you're

playing Canada as well. But partly because European touring is usually the first step, and partly because of the common language, America is usually a pushover. The only difficulties are getting equipment and people there and back cheaply and efficiently, and, as always, keeping on schedule.

Donal Gallagher, Rory Gallagher's brother, is also his tour manager. "The cost of flying stuff to the States is enormous — the last time we flew over, the freight charges were £1,300 to New York alone."

"In the U.S., you can either stipulate in a rider to your contract that the promoter must provide a P.A. system of a certain specification (and more or less get it), or hire more or less exactly what you want where you're playing."

"P.A.s and most equipment can be hired. Of course, if you're a support act, you'll be using the headliner's P.A. anyway. If you're headlining, you can get the promoter to provide a set-up, but it's a good idea to ask for more than you want — ask for a 2,000 watt P.A. if you want 1,000 watts, for example."

For the equipment which you do have to carry across the Atlantic, Donal recommends flight cases, a worthwhile investment. "There are a couple of firms that make them, Silverline is the one we use. The cases are made lightly of fibreglass and foam, and they'll build them for you to order." They're expensive, but there are a couple of considerations that make it worthwhile: the cost of extensive repairs on the other side, and the minimal weight of the specially designed cases.

Besides the carnet (which is treated separately in this article), there are a number of other considerations and short cuts to consider when you're touring in the States.

If you're headlining, of course, you'll have a great deal of support from the record company, who'll take care of almost everything:

hotels, trucks, limousines, meals, plane flights and connections — the works. But many support groups, who aren't established in the States and lack an American product release worth the record company's effort, will have to look after themselves.

On this side, it's advisable to get your carnet sorted out ten days or so before you're leaving. It goes without saying that you should make sure that you list *everyone* who is entitled to use the carnet. If you decide to turn the whole operation over to an air freight company, such as Rainbow Freight, they have to be specified on the carnet as well. (Rainbow Freight provide a specific service. If you drop all your equipment at their premises, they'll see it through to the other side. They are particularly useful if you're landing in New York, and then getting a connecting flight to another American city. Then all you have to do is land in, say, Cleveland, go to the Rainbow office, and collect your gear.)

Donal: "Once you've got the gear across the Atlantic, it's advisable to check everything in the presence of an airline or air freight official, and make sure that there is no damage. If there is, it's usually visible on the cases' exterior, so you don't have to take everything apart."

Once you're at the airport, you need transportation. There are a number of companies in the States that hire trucks, although from his own considerable experience, Donal Gallagher recommends Ryder and E Z Haul, while for vans or cars, Avis and Hertz are suitable. If you're travelling the long distances by air, you can book any of these by phone, to meet you on your arrival at the airport.

Hotels are neatly avoided by most bands, British and American, by the thousands of motels which dot the States. Of particular interest among their numbers are the Holiday Inns. Cheap, cheerful, and accustomed to the

*continued on page 32*



## THAT GREAT GRETSCH SOUND

All Gretsch guitar and percussion enquiries will be handled by our new enthusiastic team of agents.

Distribution by:  
Baldwin Piano & Organ Co.  
Sterling Industrial Estate,  
Rainham Road South,  
Dagenham, Essex.  
Telephone 01-595 1212

# GRETSCH

## Working Abroad

odd hours of the road, the Holiday Inns are everywhere. They do of course fluctuate in the services they offer, but most have swimming pools, and a few of the posher ones provide room service and a laundry service. Besides their relative inexperience, they offer the additional service of booking the next night's Holiday Inn for you, free of charge. There are a lot of jokes made about them, but they save bands lots of money.

As a support act, you're actual American organising can be a lot simpler. The headlining act may have some spare room in their transport for your equipment, and you certainly should be able to use their P.A. Usually, but not always, you'll be staying in the same accommodations as well, so that reduces the organising a bit.

## Plugging In

Playing in Europe presents all kinds of difficulties. Apart from the problems of getting the equipment together, getting it across the Channel, and to the venue, there are plenty of problems left.

As a rule most of Europe, runs its electricity at 220 AC, but there are some potentially lethal exceptions. France is particularly notorious on this score — one band discovered not long ago, after their mixer blew up, that the hall was wired up for 240 volts DC. This is only one of the electrical difficulties Europe presents.

Plugging into the mains requires first of all a change in plugs, as the whole of the Continent (and the U.S., too, for that matter) functions on a bonded earth system — which means a two pin plug. You should only have to change the plugs on connections which will go directly into power outlets.

But before actually sticking it in, there are a few basic precautions, which can prevent a major tragedy. First of all, with a volt ohm meter, you can easily check to make sure that the voltage is alright. Voltage in countries like Spain, France, and even Belgium and Luxembourg can vary wildly, and a fluctuation of 10-15 volts can not only be dangerous, but will certainly send any electric keyboard soaring out of tune. If the voltage is fluctuating, there isn't much you can do, apart from carrying an expensive, heavy and bulky voltage regulator.

An additional advantage to a voltage ohm meter, offered by Nicky Sholem of Renaissance's lighting crew, is that you can check to make sure that the wiring is set up as it should be, thereby avoiding electrocution. If you take the red probe (live) and stick it in the live, and place the black across the neutral, it should ideally read 240 volts. After doing that, you should also do a quick check on the earth, by leaving the red probe across the live socket and put the black probe across the earth. Again, the reading should ideally be 240, which proves that earth is decent. You can then make one quick check, by putting the probes across the neutral and earth fittings, and the reading should be zero.

If there is a reading in this last step, and particularly if there was no reading between live and earth, it means that the wiring is reversed, or that there is no earth. In the former case, you should ask for the electrician to check it and make the necessary changes, for the simple reason that it is *his* job, and also because if you do it and something blows up, you'll get the blame.

Stories about electricity in Europe abound among road crews. Phil Bowdrie, Mud's road manager told *IM* that the electricity in Spanish venues is so bad that when you plug an instrument in, the lights dim.

All the roadies we spoke to advised people on tour to carry spares of everything, from fuses, flexes and valves to amplifiers, if possible. The difficulty is not so much in getting replacements as finding where to get them in a foreign city, on a tight schedule, and often at 9.00 p.m.

Touring in the U.S. is universally treated as a dream — usually because, by the time a band makes it there, the lean years are over. But it's also because the American's precautions are more in line with British standards. The only major difficulty, according to Donal Gallagher, is the 110 volt system which is standard in the U.S. "Most of the modern equipment built in this country has switches which allow for 110 volts as well. Some of the older stuff doesn't but it's easy and fairly cheap to get a transformer.

The only other difficulties are minor. As mentioned above, the Americans use the standard two pin plugs and the unexpected ones of language: the Americans have a few different words for the same thing. Valves are tubes, flexes are extension cords, mains are power and so on. □



## STINGRAY SUPER COMBO

Twin Channel combo amplifier with tremelo reverb and sustain Pre amp. and power amp. specification same as STINGRAY SUPER

Plus two heavy duty speakers matched to the power amp. to give 100 watts RMS output power. Total power output capability 130 watts RMS when using extension speakers.



## THE SOURCE OF ALL POWER

Carlsbro Sound Equipment, Cross Drive, Lowmoor Rd Industrial Estate KIRKBY-IN-ASHFIELD, Notts. England. Tel: Mansfield (0623) 753902



# A galaxy of organs— at prices that aren't out of this world.

WELSON Mod. MG. 250/SK



WELSON Mod. Winner 45



WELSON Mod. MG. 150/S with the fabulous 'F.A.B.'



There are 40 organs in the Welson range—and all of them stars.

Welson space-age electronics give you tones as pure as crystal—and the scope of the sounds at your fingertips (and toetips!) is phenomenal. You name it, a Welson reproduces it—with full backing percussion rhythm.

And full modulatory controls give you all sorts of freedom to vary your sounds.

Welson make the famous Syntex synthesiser too. So from Welson you get a range of sounds as endless as space itself.

And at what value! When you weigh up the quality, scope and the price of a Welson you'll see what we mean.

**Cost for cost Welsons are probably the finest value for money organs available.**

Go to your local dealer and play one. Hearing is believing.

(If you'd like details write to us. We'll send you some literature and the address of your nearest stockist.)

Welson. Fine organs from

## WOODS *of* BOLTON

15/17 Manchester Road, Bolton.

# MACARI'S

POST-BUDGET  
**SPECIALS**



☆☆☆DUE TO OUR NEW POLICY OF BULK PURCHASING WE ARE ABLE TO PASS ON TO OUR CUSTOMERS A GIANT SAVING ON THESE EXCELLENT INSTRUMENTS☆☆☆☆

MACARI'S HELP YOU KEEP COSTS DOWN!



COMPACT PIANO	<del>£230</del>	£160
FENDER RHODES	<del>£679</del>	£600
HOHNER PIANETTE	<del>£244</del>	£220

## KEYBOARDS

INCLUDING  
NEW RATE  
of V.A.T.

### STRING MACHINES

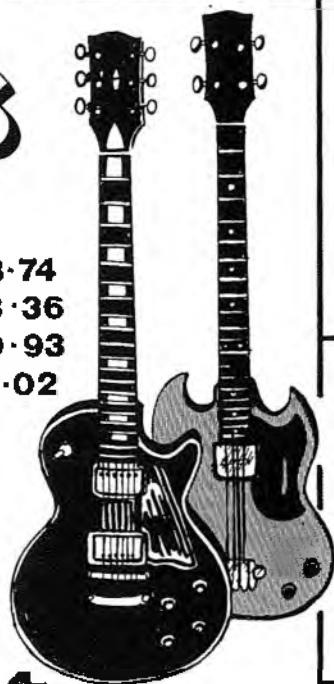
ELKA RHAPSODY	<del>£465</del>	£425
SOLINA	<del>£580</del>	£525
INSTANT STRING	<del>£334</del>	£299
MINI ELKA	<del>£275</del>	£230
MELLOTRON	<del>£950</del>	£625

## GUITARS

### GRANTSON COPIES

L.P. 2	<del>£64.94</del>	£48.74
L.P. BASS	<del>£57.81</del>	£43.36
S.G. 2	<del>£53.24</del>	£39.93
S.G. BASS	<del>£54.69</del>	£41.02

★  
SUPERB  
VALUE!



## EFFECTS

PHAZER 4	<del>£28</del>	£27
SUPAPHAZE	<del>£48</del>	£43
CHUCK-A-WAH	<del>£18</del>	£16
6 CHANNEL MIXER	<del>£47</del>	£42



## AMPS

SOUND CITY		
120 Lead & Bass	<del>£124</del>	£89
50 Rev. Lead & Bass	<del>£120</del>	£84
Concord Combo+Rev	<del>£165</del>	£119

INCLUDING  
NEW RATE  
of V.A.T.

it's all at  
**macari's**

102 CHARING CROSS ROAD, LONDON W.C.2  
122 CHARING CROSS ROAD, LONDON W.C.2  
20 DENMARK STREET, LONDON W.C.2  
TELEPHONE: 836 2856

Mighty  
Atom  
~~£28.50~~  
£23



*Most British bands serve at least a brief apprenticeship here, break, and then repeat the process in the U.S. America were an exception — they made the jump before they ever really reached the top here, and return to play to full houses, many of whom believe the band are American. Jon and Seth Tiven spoke to Dan Peek just after America had finished Hearts, their new album, produced by George Martin at the Record Plant*

*Was the new album written way in advance or did you go into the studios with only half the material written?*

It was probably three-quarters figured out and written before. We had some time between holidays and touring to put together some songs, but when we got up there, as usual, a lot of it was finished off. We rehearsed for a week and a half at the studio, and a lot of the stuff came together there as far as arranging. But as soon as we went in with George, he had his own string arrangements.

*Did you talk things over with George before you went into the studio?*

He had faith that we would deliver the songs as we had before. We came with five more songs than we needed for the album. We went up with 15 or 17 songs, which we had done with *Holiday*, so it was really a repeat of the way we had done *Holiday*, except for the fact that George came to Sausalito, instead of us going to England.

*Were there a lot of songs left over from Holiday which just had never been released?*

Actually there were one or two songs. I can't remember really because there's such a volume of songs that we do. Very seldom do we scrap something from one album and then put it on another album

unless it was something we really liked. I think that's only happened once or twice. I think the song "People in the Valley" might have been a leftover from *Holiday*. Everything else was pretty much brand new. It was only because of the new arrangement of "People in the Valley" that we did it that way.

*How much do you get involved when someone else writes a song?*

Whenever we do someone else's song, there are always ideas about changes as far as the vocals or changing a chord here and there. Very seldom does the song come down on tape exactly the way it was written or conceived.

Usually we do write separately, on this album though there are a few songs — "Story of a Teenager" — which Jerry and I co-wrote. It was so much different in the past. We just recognized that we were writing together and thought that it would be good to let people know. A lot of times songs that may have been credited to one person were really group contributions.

*Do you ever come upon the situation where one person sings another person's song because the melody fits his vocal range better?*

Yes, that is true on "Midnight". Jerry wrote the part that I sing, because it was in a key which he felt I would be more comfortable in than himself. That often does happen on a lot of songs. On the early stuff we used to swap vocals a lot. I think it's because at first we didn't feel confident with our singing abilities, but as time goes on you feel more comfortable with what you've written so you find it a lot easier to sing.

*Do you find it easy working with George?*

Yes, it was really organic. There was

something from the first moment we met. We knew where he was from listening to his records, and after he had heard what we were doing that he was immediately comfortable with it. We're really great friends — we keep in touch. We have plans for future albums together. *Are you going to be doing solo albums in the future?*

That's not something that we really have time to think about for a couple of years. In five or ten years I'm sure we would all want to express ourselves in some way other than the group, but it would probably involve all of us going to the others' sessions and singing on the songs. A solo career as such is really not in the near future.

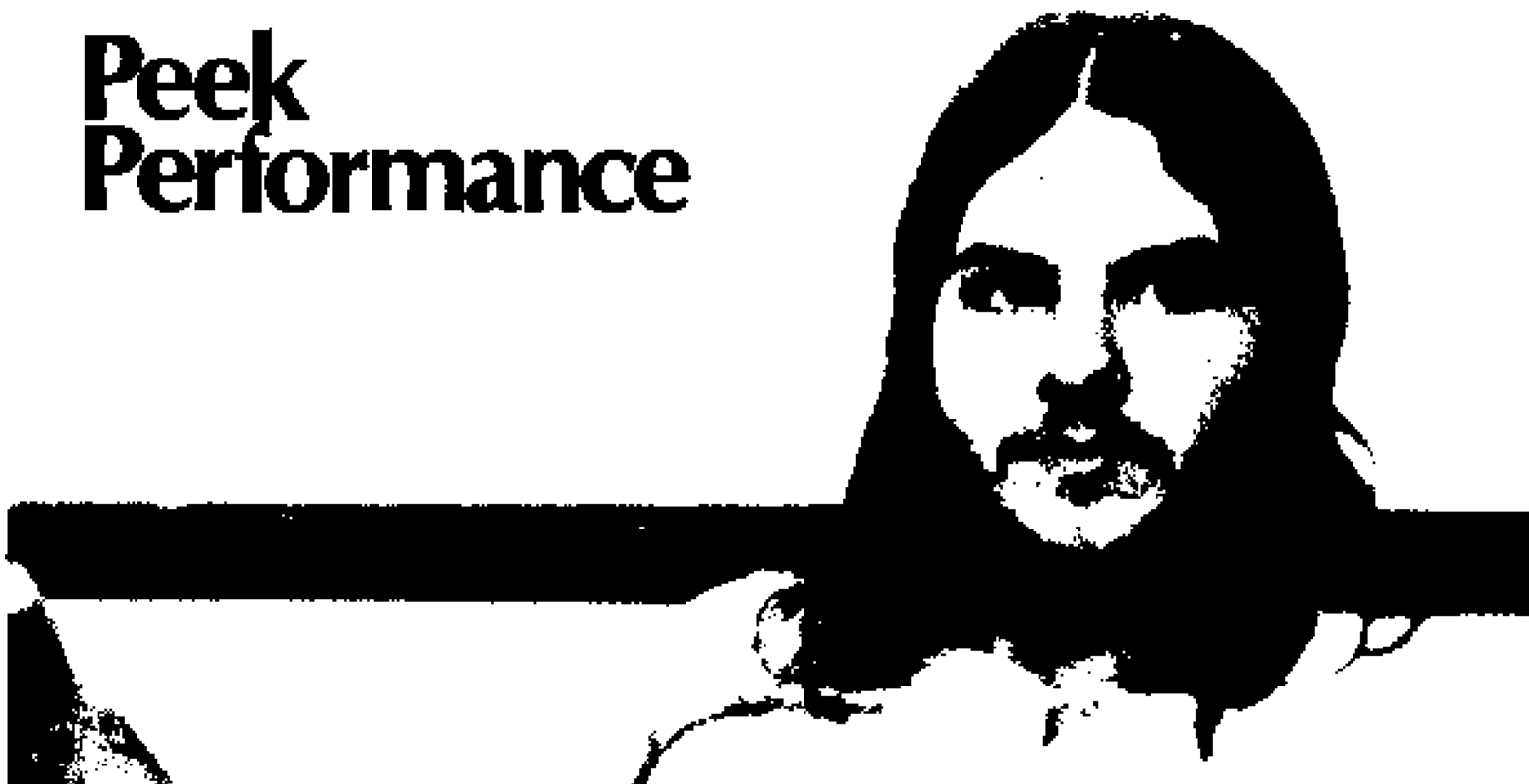
*Have you ever considered doing outside material?*

Actually we covered a song by a friend of ours in England — John Martyn. That was called "Head And Heart" and that was on the *Homecoming* album. Then we had a single called "Muskrat Love" and that was by Willis Allan Ramsey. So we do often find material that we really like and recorded it. It's a case of if something pops up that's really good then we'll go with it, but it's not something that we're always looking for. I think the reverse is probably true, that a lot of times songs that we don't use ourselves, other people have in mind to record.

*What do you do when you're not on the road?*

I live in Los Angeles and I try and soak up as many sun rays as I can while I'm there. It seems as if we're on the road constantly. There's hardly ever a break between touring and writing and recording — it just seems like a constant flow. Music is my hobby so I never really get away from it.

## Peek Performance



## HARLOT

After seven months, Harlot are just on the brink of getting it all together. And it won't be a moment too soon. The four piece (Mike Japp, guitar and vocals; Mick Dyche, guitar and vocals; Jimmy Bain, bass and vocals; and Ricky Munro, drums) have been cooking in London for about six months, playing regularly in support (and occasionally as fill in headliners) at the Marquee, the Speakeasy and Greyhound, but they've found it hard to get work outside of London. "The agencies just don't want to know until you've got a recording contract," Jimmy Bain told *IM*, "and we're not really a pub band - we need too much room to really come across well in a pub."

Harlot were in fact banned permanently from one London pub venue for being too loud - "Disturbing the people at the back" - and gigging has been pretty restricted.

The individual members of Harlot have all been close to success in the past, without actually making it. Mike Japp was in the second version of the Marmalade for three years, Jimmy Bain played in John Lee Hooker's support band on a North American tour, and also played in Choker, Ricky Munro played in Tear Gas and Mandrake Root with Ritchie Blackmore, and Mick Dyche played with Wild Turkey

for two years.

The waiting and struggling for a record contract is a strain economically but Harlot reckon that what they have going is worth the wait. "We've all been offered steady gigs with established bands in the last few months, but we haven't even considered them," said Mike Japp. "We've been struggling, but I guess you could say that the money's low but the spirits are high."

The money is, it seems, very low for the moment. The group rehearses in one of the member's flat, their P.A. is hired, and Mike Japp was nearly electrocuted recently when it turned out his stack was unearthed.

"We wouldn't complain if we were playing regularly - if I had one square meal a day and my rent, I'd be happy as a pig in shit. It's the waiting and the disappointments that are hard to take," Jimmy added.

A recording contract is literally just around the corner for Harlot. "We've had the usual difficulties," their manager Louise Barber told me. "A&R men have

told us that they like the tapes and once, after he hadn't showed up for the gigs, one rang to say that he was going to come but he fell asleep in front of the telly!"

That kind of remark can only be funny when a contract is near, and the band were smiling. Mick Ralphs and Ron Nevinson have expressed an interest in producing Harlot. "Mick came down to the Speakeasy one night, heard us, and left word with the manager that he would like to talk to Louise. That was how it started. We've seen him quite a bit since, he's heard our tapes and has an idea for a new arrangement for one of our songs."

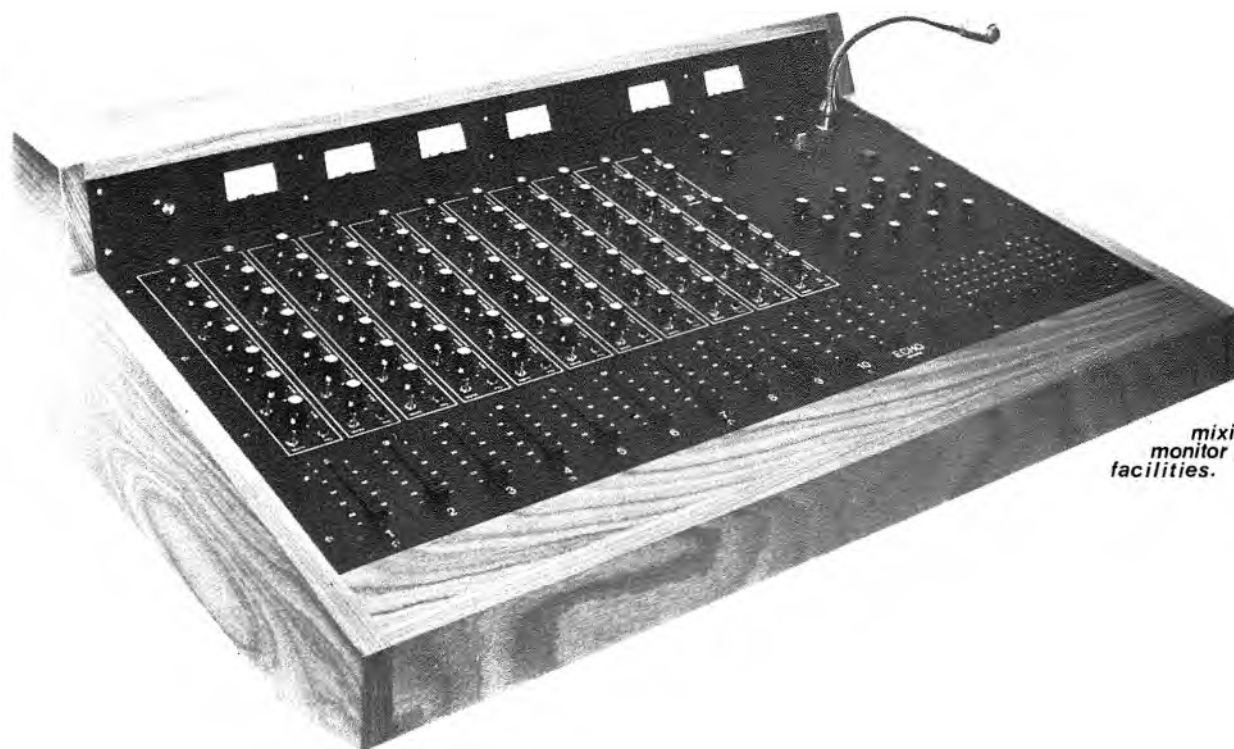
This interest and the prospect of a recording deal have spurred Harlot into a flurry of activity. They now have a large enough backlog of songs for an album, and, when the contract does come, they'll be ready.

Jimmy Bain plays a '61 Telecaster; Mick Dyche plays a Les Paul and a Gibson SG for slide; Ricky Munro has a Ludwig kit; and Mike Japp plays an Epiphone Sheraton.



Left to right: Jimmy Bain, Mick Dyche, Mike Japp, Ricky Munro.

**AMEK** 8 STOCKPORT ROAD ALTRINCHAM CHESHIRE WA15 8ET ENGLAND  
phone 061-928 8688 contact Nick Franks & Graham Langley



10/4 "S" series  
mixing desk with  
monitor & remix  
facilities.

Modular & "S" series studio and p.a. desks; p.a. & monitoring systems; electronic crossovers; graphic equalizers; power amps; TEAC franchised dealer

# FBI

If Alvin Lee can be trusted as a judge of musical talent, it should be just about 12 months until F.B.I. are a household word. Perhaps not in every household, but enough to mean success.

A nine-piece funky rock band, F.B.I. have been chugging around the London pub circuit for about seven months, blowing full house after full house into joyful submission.

Herschel Holder, who plays trumpet and flugelhorn told *IM* that the band had eventually wound together as a number of very talented strands. "I was in a group called Batik with some of the other guys in the band — Root Jackson on congas, Lloyd Smith on sax, Len Meade on bass and Rafi Pereira on guitar — but that split up. We were all close, but we decided to go different ways for awhile. We had done some cabaret, backing Jimmy Helms, and we had a residency in Whitley Bay. "We had been pretty close, and after awhile, I got in touch with the others about getting something going."

This was August of last year, and these five were the nucleus of F.B.I. The band, Herschel explains, was formed for love and not money. "We all wanted to get something together that would be beautiful, and spend some time working on it without thinking too much about success."

By the end of November, the five were getting close to cutting off the lucrative sessions and backing gigs to go more or less full time. They held auditions, and Jamie Black got the gig as lead guitarist. "While we auditioned, we had to look for talent and feel, the right *kind* of feel. Jamie could sing as well, and he'd been working with Mac and Katie Kissoon, and was still committed to a few gigs with them." Bonnie Wilkinson was the next to join, as lead vocalist, followed by pianist Alan Fieldman.

These seven rehearsed together in Herschel's flat, and by Christmas, they had a drummer in Steve Dixon. "I felt we were ready to play, so I phoned Bob Stevens at Ronnie Scott's Upstairs and we went around there."

From there it was the pub circuit — The Torrington, Hope And Anchor, Greyhound, and the Golden Lion, spawning grounds of bands like Kokomo, Gonzalez and Brinsley Schwartz. "I talked to Fred Granger at the Hope And Anchor, and we got to play a cancellation there. After that, we had a regular gig there; and it just grew from that."

The gigging has tailed off now, as F.B.I. devote more time to writing and rehearsing material for an album and a single. "Come See Me Around Midnight", hopefully out in late July or August.

They should surprise a lot of people outside of London. "We have played in Wales once, and also once in Birmingham, but Alvin told us that there was no money in touring outside of London.

"By the time you pay for petrol and hire a van and a minibus, pay for roadies and so forth, you can't break even." Now, after the first taste of success — a contract with Alvin Lee's Space Songs — the last few months' troubles can be seen as funny. "We must be the poorest group in London," Herschel laughed. "Fortunately, the band is co-operative, and some members haven't had to take out so much from what we've earned." Even with that spirit, it's been hard going. "One night, everything just seemed to go at once — the P.A., amps, cabinets, everything. Even the electric piano was going in and out of tune!"

F.B.I. are recording now, at Alvin Lee's home studio. At the time *IM* spoke to Herschel, it was unsure who would finally be producing them, although Riff Martin's name was mentioned.

Herschel Holder plays an Olds recorder trumpet; Lloyd Smith plays a Selmer Mark VI saxophone; Len Meade plays a Fender Precision bass; Alan Fieldman plays a Fender-Rhodes electric piano; Jamie Black plays a

Fender Stratocaster (lent to him by Alvin Lee); Rafi Pereira plays an (unspecified) Hohner guitar; Steve Dixon has a Ludwig drum kit; and Root Jackson plays the congas (an unspecified wooden shell model).



## INTRODUCING... THE 2000

No preamps, flat response, versatility. Just stick an Ibanez 2000 on your acoustic guitar, banjo or mandolin, plug it directly into any guitar amp or PA system and away you go!

THE 2000 is a new development in piezo-ceramic pickups from Ibanez. It's complete in itself and requires no expensive extras to get that true acoustic sound.

Need another reason to try THE 2000? How about price — £20.25 at leading music dealers.

Exclusive distribution in  
Great Britain

**SUMMERFIELD**

Saltmeadows Road  
Gateshead NE8 3AJ

**Ibanez**

2000 PICKUP



# DYNAMIC MICROPHONES ARE BEST

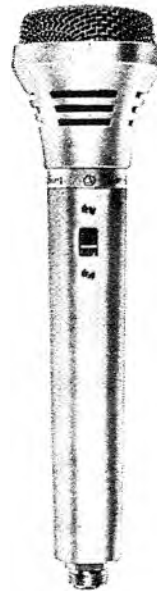


**KTM-1 £7-75**

Low cost, non-directional type microphone picks up sounds from all directions. Great for group or interview uses. Use where feedback and audience noise are not a factor. Sphere shaped head for natural voice sounds. Built-in wind and "pop" screen.

### SPECIFICATIONS

Impedance: 50K ohms  
Sensitivity: -58db/1,000 cps.  
Frequency Response: 100-10,000 cps.  
Dimensions: 43 dia. x 163 (mm)  
1.7 dia. x 6.4 (inches)  
Weight: 395 grams/14 ounces.



**KTM-3 £9-95**

A small style microphone built especially for the vocal performer. Parabolic-shaped head gives a close intimate sound. Its cardioid directional pattern pick-up eliminates background and audience noise up to 80%. A favourite style for TV performers due to the low profile flat-top wind screen. Brushed aluminium finish will not reflect stage lighting. Ideal for multi-mike set-ups.

### SPECIFICATIONS

Impedance: 50K ohms  
Sensitivity: -57db/1,000 cps.  
Frequency Response: 100-10,000 cps.  
Dimensions: 41 dia. x 170 (mm)  
1.6 dia. x 6.7 (inches)  
Weight: 370 grams/13 oz.



**KTM-2 £10-95**

Directional cardioid pattern pick-up. This type of pattern is especially useful when the performer must stand directly in front of speaker system as it will eliminate up to 80% of the background noise while accepting all frontal sounds. The directional characteristics make it easy to aim the KTM-2. This feature is extremely helpful in multi-mike installations and also to avoid pick-up of unwanted outside noise. Dual impedance allows use with a wide variety of sound amplifiers or with extra long cords. Sphere-shaped head for natural voice sound. Built-in wind and 'pop' screen.

### SPECIFICATIONS

Impedance: High 50K ohms/Low 600 ohms  
Sensitivity: -57db/1,000 cps.  
Frequency Response: 100-10,000 cps.  
Dimensions: 52 dia. x 230 (mm)  
2 dia. x 9 (inches)  
Weight: 510 grams/1 lb. 2 oz.



**KTM-4 £12-95**

Uni-directional, cardioid-shaped pattern. Reduces feed-back problems. A high quality, professional microphone suitable for studio, stage, TV and radio applications. Dual impedance for use with all types of tape recorders or with extra long connecting cords. Directional qualities make the KTM-4 ideal for multi-mike set-ups. Built-in wind screen, rich sound to all voices. The KTM-4 is especially suited for male vocal and 'heavy' sound groups.

### SPECIFICATIONS

Impedance: High 50K ohms/Low 600 ohms  
Sensitivity: -57db/1,000 cps.  
Dimensions: 44 dia. x 200 (mm)  
1.7 dia. x 7.8 (inches)  
Weight: 510 grams/1 lb. 2 oz.

Complete with 20-foot fully shielded connecting cord which ensures clean, crisp sound by eliminating all unwanted signals from lighting fixtures, outside transmitters, etc. Also includes a quick-release holder for use with any standard microphone stand.

### GUARANTEE

Kay microphones are guaranteed against manufacturing defects for one year from date of purchase.

*For further details see your local dealer.*

No music or public address system can be any better than the microphone that picks up the sound—KAY microphones.

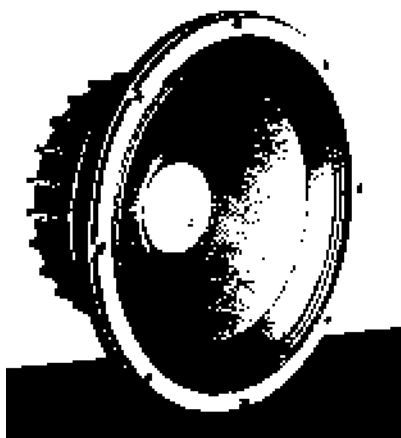
**W.M.I. LTD.**  
**PONTYGWINDY INDUSTRIAL ESTATE,**  
**CAERPHILLY, WALES**  
**Tel: 0222 883904**

ATC IS a rare bird. It's a new company set-up specifically to manufacture and sell high quality driver units and that's unusual.

The company is housed in converted laundry premises at picturesque Strand-on-the-Green, Kew, beside the tidal Thames in an operation headed up by a German salesman and Australian scientist. This unlikely combination has been together for a year or so and since January this year the company has been producing a limited number 12 inch speakers.

"We are producing very high quality 12 inch speakers for applications, where quality rather than economy is the main requirement. There is considerable research behind the launch of our driver and I'm delighted to say that many companies who manufacture sound equipment are either already installing our speakers as standard or as an optional extra," says marketing director Hans-Gunther Freytag.

The development brain is Bill Woodman. Before starting ATC (Acoustic Transducer Co.) he was on R & D with Goodmans who have been known to produce the odd driver, and he has brought his experience to bear in producing a speaker he believes to be something special.



The 12 inch units produced by ATC are rated at 75 watts RMS for standard and bass application with a hi-fi speaker rated at 100 watts. It is in the design and winding of the coils that ATC claim their major advantage. The coils are bonded edgewise round copper ribbon wire, twice treated to ensure their ability to withstanding the great heat long usage at high volume can produce.

The company is still young and Hans and Bill are excited by the initial response to their driver. In the days of multi-national corporations producing everything from traffic lights to hi-fi systems it is refreshing to find a company who are putting all their resources into a single 12 inch speaker.

## Chingford Cabinet

CHINGFORD ORGAN Studios are excited about a new amp and speaker system they are importing from Germany.

Called the Solton, the cabinet is a two-speed rotary speaker system with brake and it has an unusually high power output of 130/160 watts. Two inputs for connection to an organ or instrument are provided and Chingford are offering free delivery of the system anywhere in the U.K.

## New Pace

PACE ELECTRONICS are a new amplifier/equipment manufacturer based in Cambridge. The company is producing a wide range of items for group use.

Headlining the Pace range is a P.A. mixing desk. This is a 12 channel desk with full monitoring and EQ facilities. To match this desk, Pace produce a 200 watt slave amplifier, a P.A. bass bin which is offered with either a Celestion 100 watt speaker or a Gauss 150 watt speaker. Also available are Radial and Sectorial horns, monitor speakers and accessories such as a compressor and a digital delay line/automatic double track.



## Marathon Record

TONY SANTOS, the DJ who has built a career for himself by breaking marathon playing records, has recently chalked up another marathon success at Gullivers Club in London's West End.

The DJ ate and slept during LPs and managed to play over 700 hours of nonstop dancing music.

Throughout the marathon, Tony used Soundout disco equipment exclusively and apart from changing the cartridges once, no other maintenance was necessary.

## Leslie Push

BECAUSE THE NEW Hammond portables are expected to meet high demand, Leslie speakers under the management of Ray Hammond, are gearing up to supply two tone cabinets along side the Hammond X5 and X2 portables.

Despite the fact that supplies of the Hammond will be comparatively limited until autumn, most organists are expected to opt for either the 825 or 760 Leslie rotary cabinet to compliment the organ, so Leslie have been promoting the cabinet to dealers who are stocking the Hammonds.

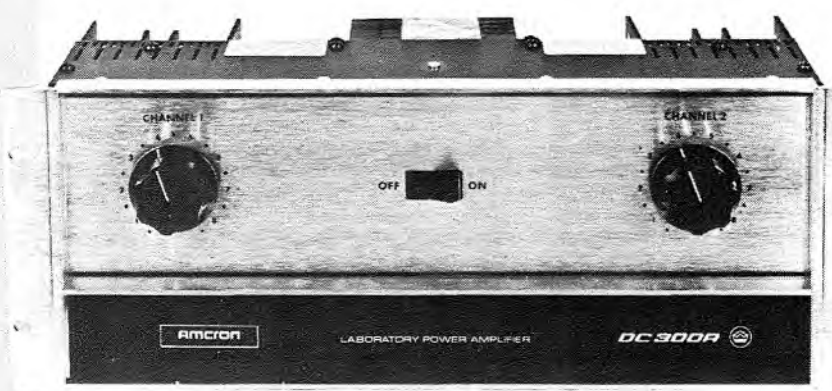
## New Address

SOUNDCRAFT ELECTRONICS have recently moved to a new address. They are now at Soundcraft Electronics Ltd., 4th Floor, 5/8 Great Sutton Street, London EC1. 01-251-3631.

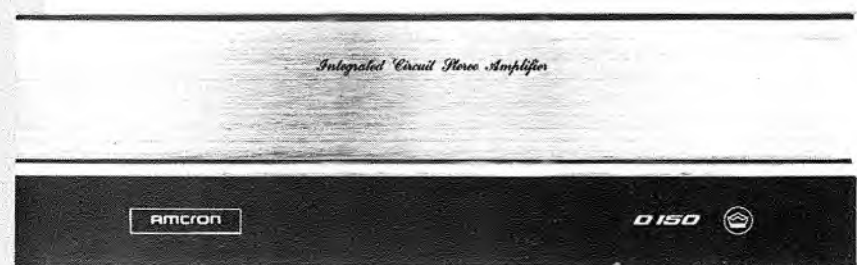
M600



DC300A



D150



VFX-2



# Invest wisely in Amcron

Insist on buying outmoded 100 watt slaves and you're taking a chance of throwing away at least £200 when the band's success demands more sophisticated amplification.

Invest your money wisely — with an Amcron amp, you won't have to go to the bank when your band takes off.

*The M600*, While maintaining the exact performance standards of the DC300A, produces 750 watts (monaural) into an 8 ohm load, and 1350 watts into a 4 ohm load. Built for durability and trouble-free operation, the M600 includes built-in cooling which permits continuous full power operation. R.M.S. Power Response +1, -0dB DC -20 KHz at 600 W into 8  $\Omega$  +1, -0dB DC -15KHz at 1 KW into 4  $\Omega$  Hum and noise (20Hz to 20 KHz) 120 dB below 600 W into 8  $\Omega$  Typ.

*The New DC300A* will give up to 500 watts from one channel with distortion lower than 0.05%. Hum and noise is below 110dB below 150 watts, and the DC300A is now able to operate into loads as low as 1 ohm. Power Response + 1dB, - 0db DC - 20 KHz @ 150 watts into 8  $\Omega$

*The new D150* offers up to 180 watts from each channel or 330 watts as a mono amplifier. Again very low distortion and rugged construction make the D150 ideal for smaller PAs and fold back systems. The Power Response of the new D150 extends from DC to 20 KHz.

*The VFX-2* provides continuously variable filters which can be used to perform either crossover or band pass functions. The dual channel unit employs two filters per channel, each continuously variable from 20 Hz to 20 KHz. Filter rolloff is at a fixed 18 dB/octave.

Setting both low and high pass filters in one channel to a common frequency provides a two-way crossover at that frequency.



For full details contact

# AMCRON

Sole Agents:  
MACINNES LABORATORIES LTD.  
Macinnes House,  
Carlton Park Industrial Estate,  
Saxmundham, Suffolk, IP17 2NL  
Tel. Saxmundham 2262 2615



# MUSIC NEWS

## Hamilton Pre-Amp

HAMILTONS OF Teesside have recently introduced a new product which provides a quick and simple way of connecting Sharma or Leslie Tone Cabinets to portable electric keyboards. The Interface Unit A pre-amp features independent volume, bass and treble controls, and provides three inputs, which will receive a wide range of signals, including the output from organ headphone sockets. A speed change switch, a speed indicator lamps and a footswitch socket are also provided.

## Dynelectron Guitars

DYNELECTRON GUITARS are now distributed by Rosetti and Co. The guitars have been available in the U.K. for around 18 months and they have quickly gained a following due to their highly distinctive shape.

Of particular interest is the four and a half octave, 31 fret neck and the body shape allows good access to all frets. The guitar has twin pick-ups and the volume pots also act as tone controls by a pushpull operation.

Models available are a six-string guitar, bass guitar and a fretless bass. The price of all three models is £149.



## DYNAMIC ATTACK



## STUDIO QUALITY DIRECT INJECTION BOXES

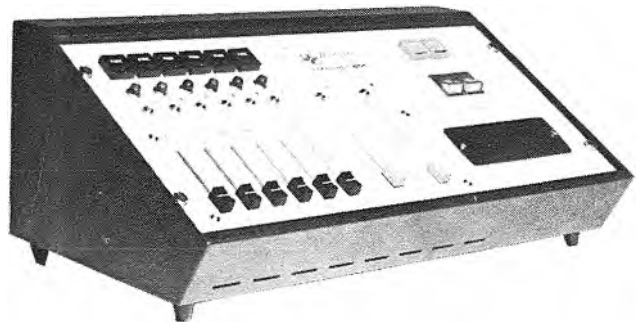
- \* connects output of amp. directly to mixer giving greater clarity, presence, attack, than a mic. in front of a speaker
- \* enormous dynamic range
- \* extended frequency response
- \* available with 200 or 600 ohm outputs
- \* input from amp. (5-300w) as shown, or direct from instrument pickup or pedals
- \* costs less than a mic. at £19.75 + v.a.t.

for full details contact

**ELECTROHILL SOUND PRODUCTS**  
28, Birchington Road,  
London, N8 8HP. 01-348 9502

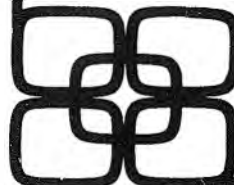
## ZERO 88

### THE LIGHTMASTER 601



The Lightmaster 601 is the most advanced lighting control unit marketed today. incorporating:

- \* PLUG-IN EFFECTS CARTRIDGES
- \* UNIQUE MASTER CONTROL
- \* INTEGRATED CIRCUITS
- \* ADVANCED RFI SUPPRESSORS



All enquiries to Chris Fenwick.  
Zero 88 Lighting Ltd., 115 Hatfield Road,  
St. Albans, Herts. AL1 4IS  
Telephone: St. Albans (0727) 63727

# D'Angelico

Acoustic  
Bronze Wound  
Steel Strings

Electric  
Roundwound  
Steel Strings

# STRINGS, STRINGS

Classic  
Nylon Strings



**D'Angelico  
Strings  
are just for  
pickin'  
one way:**

**perfectly.** You can pick  
with the best of  
'em once you've strung your gui-  
tar, banjo or mandolin with  
D'Angelico Strings.

Available at leading music  
stores in a complete range of  
weights. And when you pick up  
your D'Angelico Strings, don't  
forget D'Angelico Picks

*The Ultimate in Strings,  
none finer*

*...perfect for pickin'!*

*D'Merle successor to  
D'Angelico, New York.*

# D'Angelico

NEW YORK®

DISTRIBUTED  
IN THE U.K. BY:-

**top gear** MUSICAL WHOLESALE COMPANY  
HARBOUR WAY, SHOREHAM BY SEA, SUSSEX BN4 5HS

## Rosetti Promotions

EMI RECENTLY announced a number of promotions within Rosetti House of Music. Michael Hunka has been made executive chairman of the company. A principal shareholder in Rosetti on EMI's purchase of the company in 1969, Hunka will continue to supervise the company's operations and developments on a full time basis.

Michael Cowan, formerly Assistant Managing Director, becomes Managing Director, supervising the day-to-day activities of the company. Former Director of Administration Richard Watt becomes Assistant Managing Director.

Two new Directors have joined the Rosetti Board. Pete Tulett becomes Sales Director, and John Thompson becomes Director of Special Projects.



George Ostreicher

## WMI Expansion

WMI LTD. have acquired British Music and Tennis strings from the recently collapsed Dallas Musical Instruments Empire.

The group will be adding BMTS to their Cardiff Music Strings organisation and it is hoped that the many well known brands of string that BMTS marketed will continue to appear in the shops.

At a London reception to market the acquisition, George Ostreicher WMI's boss said, "We are delighted to have acquired this well established string manufacturing company and we are certain that we can build it up in conjunction with our existing products to provide a real service to both dealers and players alike."

## Vocalist Competition

ENTRIES FOR the International Club Vocalist Of The Year Competition that is sponsored by Beyer Dynamic and Club Mirror in association with *International Musician* have been arriving en masse at our office.

The competition final is to be held at Belle Vue in Manchester during September and the winner gains an inscribed professional microphone, and a recording test. For entry details see the announcement elsewhere in this issue.

# ELKA-ORLA

19, Bluebridge Industrial Estate, Halstead, Essex. Tel: Halstead 5325/6

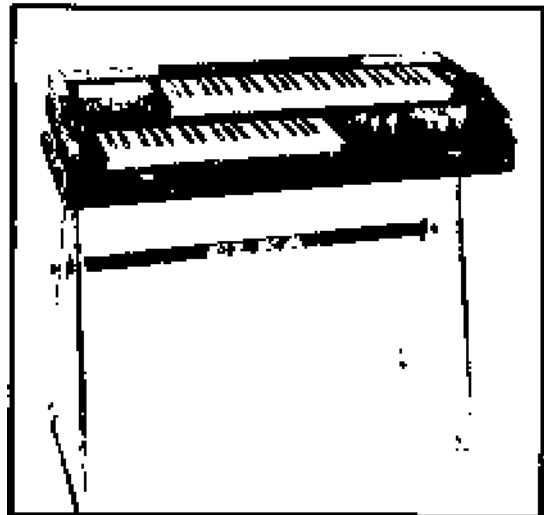


## RHAPSODY 610

### MAIN FEATURES

- 61 note keyboard from FA 43.6 Hz to FA 2793 Hz which may be divided into two: 25 keys for the accompaniment and 36 for the melody.
- The following draw-bar registers, giving way to an unlimited combination of sounds, are available for each of the two Sections: Violincello, Strings, Piano and Clavichord.
- Decay: Allows sustain control on the four voices.
- Each of the four push-buttons marked "Cancels" offers the choice of the desired effect.

# X55



### CHARACTERISTICS:

Dimensions: cm 103 x 38 x 18  
Weight: kg 26  
Colour: Green.

### SPECIFICATION

Upper Keyboard: 49 keys from C to C. 9 Draw-bar voice registers: Flute 16' - 5 1/3' - 8' - 4' - 2 2/3' - 1 1/3' - 1 3/5' - 1' - 2'

5 Percussions: 8' - 5 1/3' - 4' - 2 2/3' - 2'

Presets: Clarinet, Trumpet, Full Organ, Theatre and Draw bars.

Lower Keyboard: 37 keys from C to C. 5 Draw-bar voice registers: Flute 8' - 4' - 2 2/3' - 1' - 2'

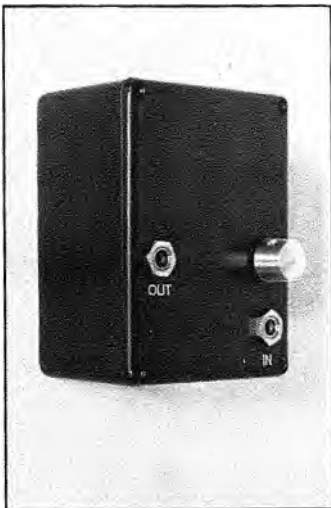
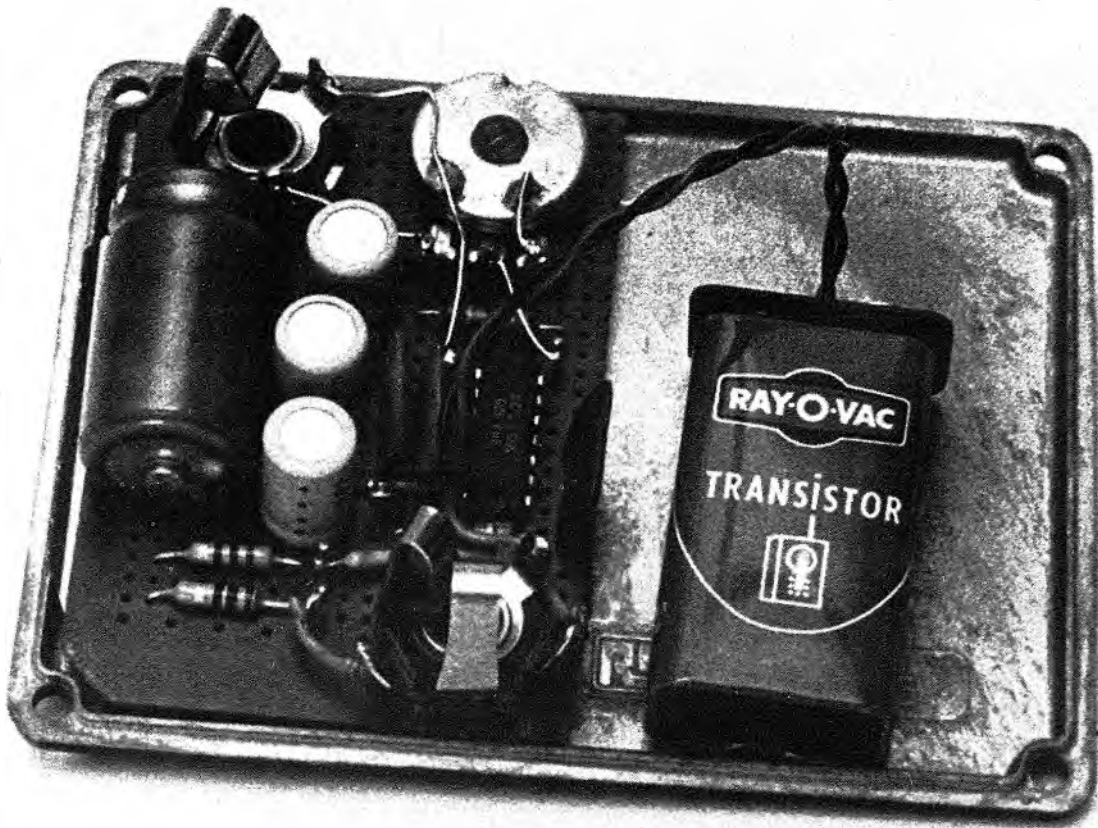
### Effects:

Vibrato: Slow/Fast  
Sustain on the upper and lower keyboards  
Brilliance  
Noise Attack

N.B. Upon request, the instrument may be supplied complete with pedalboard.

ADDITIONAL CHARACTERISTICS This portable organ is extremely compact for easy transportation having lockable carrying lid and carrying case for legs and pedalboard.

# BUILD A HEADPHONE AMP



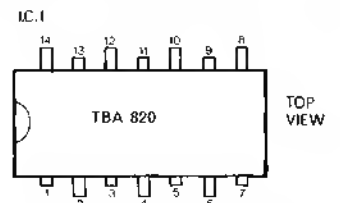
A very useful piece of equipment for the owners' solid guitars is a headphone amplifier. The unit described here is both inexpensive and simple to build and will give satisfactory results with any guitar and almost any headphone. The total cost, including a plastic or metal box in which to build it, should be no more than about £4. This is a cost effective way of hearing one's own music without outside disturbance.

It is an unfortunate fact that both guitar and headphone sensitivities and impedances vary over wide limits. This makes designing a unit which will work with any combination a little difficult. In this design, the output circuit is arranged so that the output power does not vary too mildly when headphones of different impedances are used. Any impedance from 4 to 200 ohms per headphone is satisfactory. The maximum output power is approximately 250mW

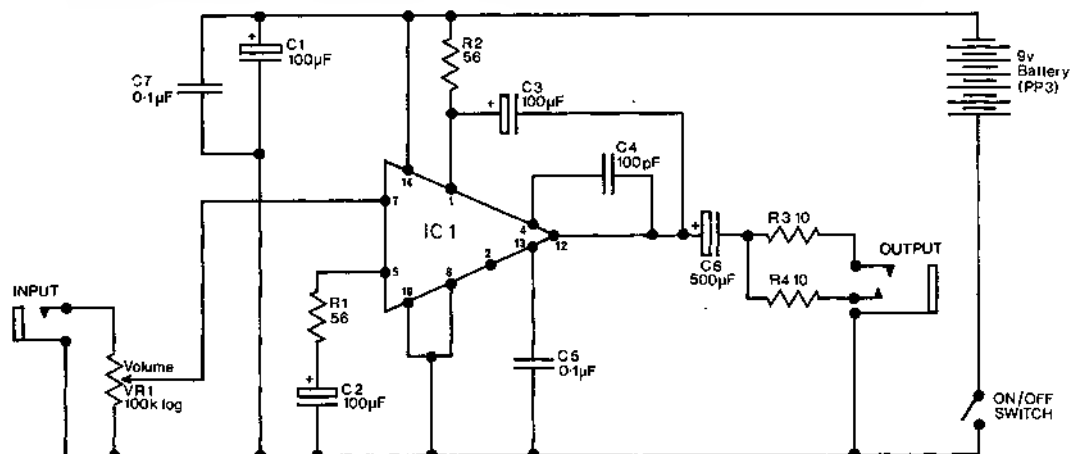
into 10 ohms. This is the maximum rating of many headphones and creates quite a high sound level. Experience shows that the 'average' guitar gives an output signal of about 30mVRMS with medium strength single note playing. In our unit, this will give full output into the headphones.

#### Construction

For simplicity, an integrated circuit power amplifier has been used. The type chosen in SGS type



TBA 820. This comes in a 14 pin plastic package which will fit directly onto standard 0.1in. matrix board (vero board). The copper stripped vero board used for last

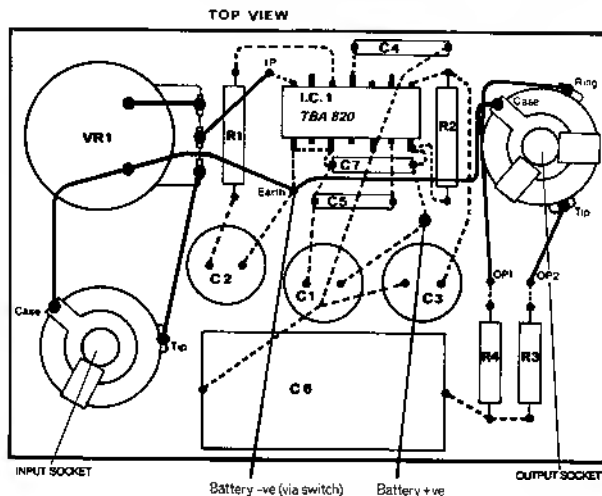
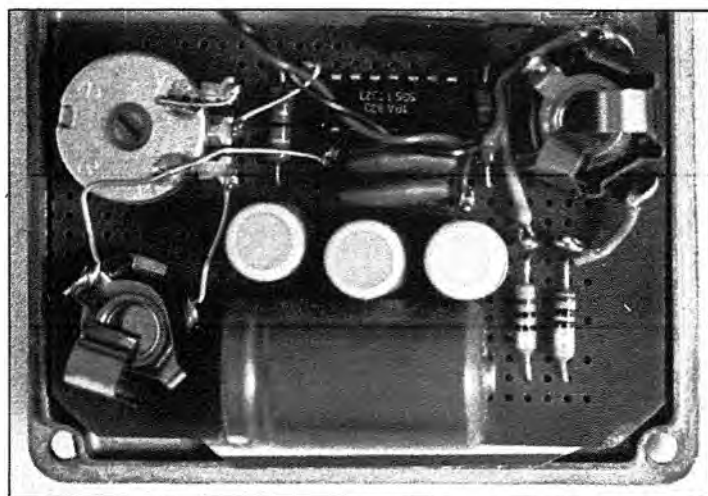


month's project is, unfortunately, not suitable for the headphone amplifier because, with the TBA 820, wiring must be kept short and direct. Plain vero board, without copper strips, can be used. The components are connected together using their own wires or 22, 24 or 26 swg tinned copper wire.

Connections are made to the I.C. pin and soldering with a *small* amount of solder. The surplus wire is then cut off. Do not hold the soldering iron on any pin of the I.C. for longer than 10 seconds without allowing the I.C. to cool. One second should be long enough to make a good joint.

The pin numbers of the I.C. are counted counter-clockwise from the dot at one end when looking at the top. The layout may have to be altered a little by some constructors because suitable electrolytic capacitors come in a variety of shapes and sizes and those purchased by a constructor may not be exactly the same as those I have used.

In the components list, a minimum and a maximum value for each capacitor is given. C<sub>2</sub>, C<sub>3</sub> and C<sub>6</sub> determine the bass response. For ordinary guitars, the minimum values are all right but for bass guitar, the 'preferred' or maximum value should be used. Note that electrolytics have a correct and an incorrect way round; usually de



# SOUNDOUT

Laboratories Limited 01 546 8378  
53 Park Road, Kingston KT2 6DB.

## DISCO SPECIFICATION

Garrard SP25 Mk.4 decks.  
Built in amps, 120w . RMS per channel.  
4 channels each with slidervolume.  
Each ch./separate bass and treble.  
Illuminated output level meters.  
Sonotone 9 TAHC cartridges.  
Low impedance microphone input  
with overload compressors.  
4 channel illuminated cueing.  
Illuminated deck start switches.



## LOUDSPEAKER SPECIFICATION

DL3  
Folded exponential horn.  
100 watts continuous handling.  
40 Hz - 5 KHz frequency response..  
1090mm x 508mm x 840mm,  
3/4" ply construction.  
Covered with Black Vynide.  
Fitted with 2 handles and large castors.

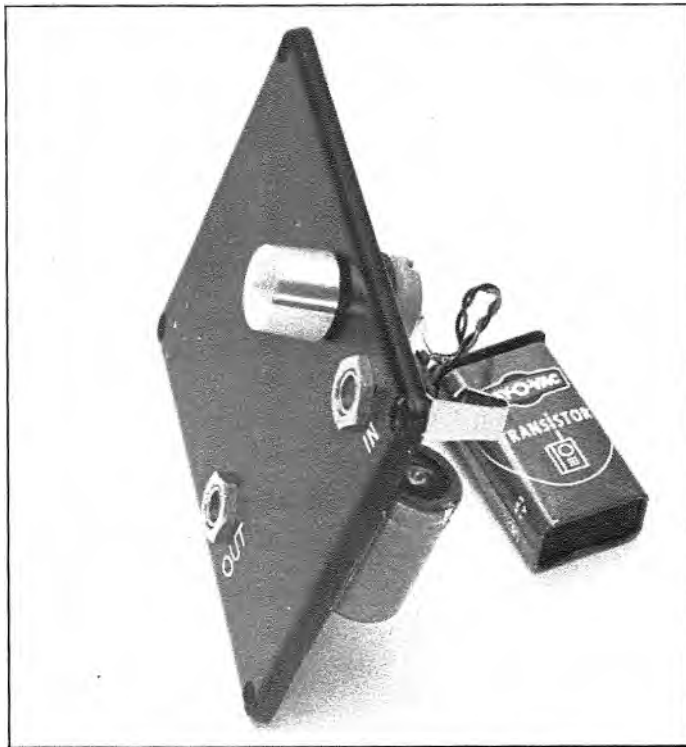
# 720 HOURS NON-STOP

SPONSORED BY RADIO LUXEMBOURG  
A NEW WORLD RECORD  
HAS BEEN ESTABLISHED BY DISC JOCKEY

## TONY SANTOS

USING HIS SERIES THREE SOUNDOUT STEREO DESK

ACKNOWLEDGEMENTS TO: GULLIVERS CLUB, W1. FANE ACOUSTICS, YORKSHIRE. AKG MICROPHONES, LONDON.



denoted by a + or - or a ring around the -ve end or a red spot on the +ve end. No electrolytic capacitors and the resistors can go either way round.

The on/off switch can be fitted in several different ways. The volume control can be brought with a switch on; a separate switch could be fitted or a jack socket of the type with a switch on, which switches off when the plug is withdrawn, could be used. If the output jack socket carries the switch, then a simple contact which makes to the sleeve part of the socket when a plug is inserted is satisfactory. If the input socket carries the switch; the switch part

must be completely isolated electrically from the jack earth contact or the amplifier may 'hoot' by itself.

Any 9 volt battery can be used. A PP3 will last a reasonable time, a PP6 for rather longer and a PP9 for a very long time. A 6 volt ba battery is also suitable but will give rather less output power to the earphones; but this could be an advantage.

The form of construction is self evident from the photographs. Any metal, plastic or wood box will suit and it need be only half the size of the metal Radio Spares box used for the prototype.

REF.	VALUE			RATING	DESCRIPTION
	min.	prefered	max.		
ICI					TBA 820 integrated circuit
R <sub>1</sub>	47	56	68		Resistor
R <sub>2</sub>	47	56	68	¼ or 1/8 watt	
R <sub>3</sub>	47	10	12		
R <sub>4</sub>	47	10	12	½ or ¼ watt	Resistor
C <sub>1</sub>	47u	100u	220u	Not less than 10γ wk.	Electrolytic Capacitor
C <sub>2</sub>	47u	100u	220u	Not less than 10γ wk.	Electrolytic Capacitor
C <sub>3</sub>	47u	100u	220u	Not less than 10γ wk.	Electrolytic Capacitor
C <sub>4</sub>	86p	100p	120p	Not less than 10γ wk.	Ceramic or silver mica capacitor
C <sub>5</sub>	-	0.1u	0.22	Not less than 10γ wk.	(Ceramic prefered) capacitor
C <sub>6</sub>	-	0.1u	0.22	Not less than 10γ wk.	(Ceramic prefered) capacitor
C <sub>7</sub>	330u	470u	1000u	Not less than 10γ wk.	Electrolytic capacitor
VR <sub>1</sub>	47K	100K	220K	Logarithmic low	Carbon pot.
	Stereo jack socket			Vero pins	
	Mono jack socket			Battery clip	
	On/off switch			Suitable metal or plastic box	
	Vero board--plain type				

INTERNATIONAL

# Club Vocalist of the Year Contest

Sponsored by Beyer Dynamic (GB) Ltd., in association with International Musician and Recording World Magazine, a competition throughout Pub land and Club land to find the International Club Vocalist of the Year.

Artists are invited to enter the competition and to carefully read the rules.

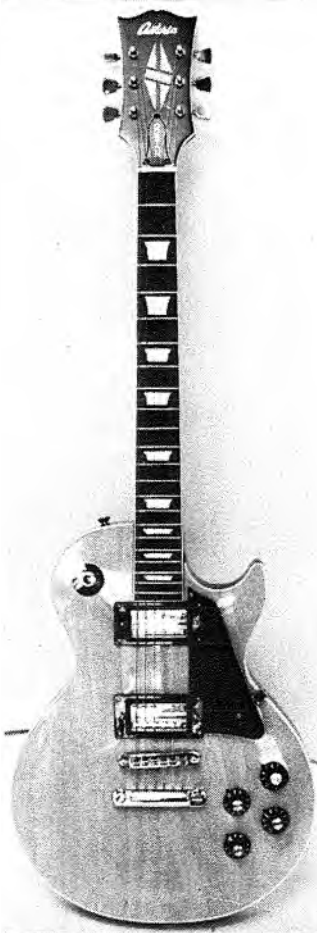
International Musician and Recording World will judge competitor's material and select four semi-finalists who will be invited to present their act or song before a panel of judges selected by the organisers at The Discotheque on Wednesday, September 24th, at the National Club Show, Belle Vue, Manchester.

(Organised by "CLUB MIRROR").

The winner of the competition will be presented with a Beyer Dynamic studio microphone inscribed and suitably mounted, and will be awarded the title of International Club Singer of the Year; the title of will carry for twelve months.

There will also be the opportunity to gain a recording contract following an audition with a well known record producer.

Write to The Promotions Director, International Musician and Recording World, 17 Tavistock Street, London, WC2.



## Our Improved Copy is now FOR SALE

International Musician commissioned guitar maker and repairer Stephen Delft to improve an Antoria Les Paul copy. In the last two issues we featured his articles about the improvements he made to the guitar and his expertly improved version of this high quality instrument is now on sale at Macari's shop in London's Charing Cross Road. Included in the list of improvements is: adjusted bridge, neck angle adjusted, action adjusted, frets filed, electric circuitry improved. This guitar is probably the best Antoria Les Paul copy available.

It's available from Macari's Musical Exchange 122 Charing Cross Road, London W.C. 2. at £135 which includes a hard, shaped case.

simply,  
three of the best!



2370  
£85.50



2375 N  
£105



2350 CUSTOM  
£83.50

# ANTORIA

guitars

Distributed by

J. T. COPPOCK (LEEDS) LTD., ROYDS LANE, LEEDS 12

*Spinning,  
Sparkling  
Leslie.*

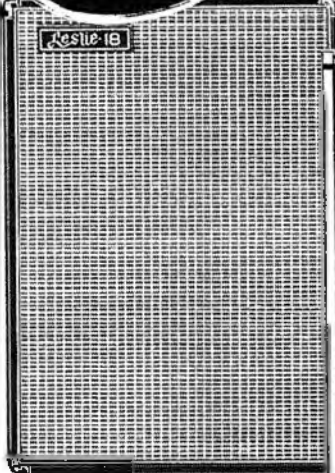


*The choice of professionals  
the world over.*



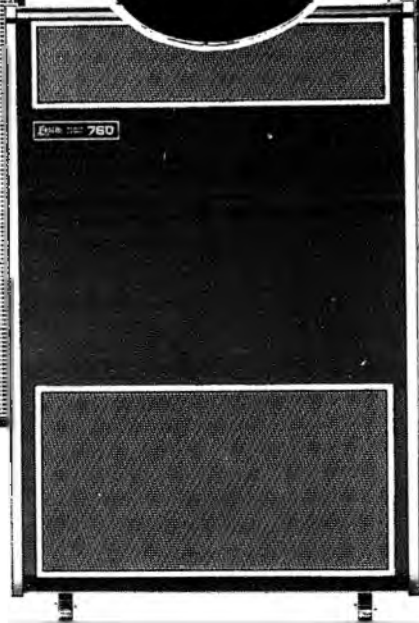


**18**



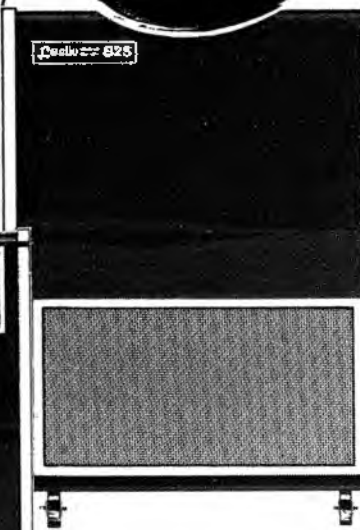
**Model 18**  
 Total Height 29in  
 Width 21½in  
 Depth 15in  
 Speakers 12in extended range  
 Rotors One foam rotor  
 Amplifier None (uses amplifier of combo instrument)  
 Weight 70lbs. approx.

**760**



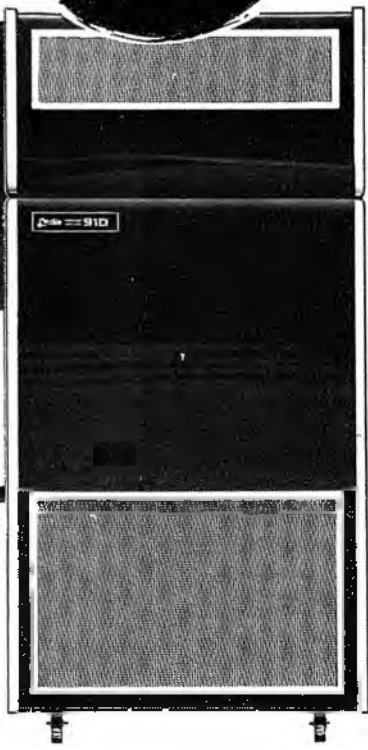
**Model 760**  
 Total Height 45½in  
 Width 28½in  
 Depth 20½in  
 Speakers 15in Bass Speaker, Treble driver  
 Rotors Two (horn and wood bass rotors)  
 Amplifiers 90 watts RMS from 2 separate channels of amplification  
 Weight 148lbs. approx.

**825**



**Model 825**  
 Total Height 31½in  
 Width 25in  
 Depth 18½in  
 Speakers 12in extended range  
 Rotors One foam rotor  
 Amplifier 70 watts RMS  
 Weight 87lbs. approx.

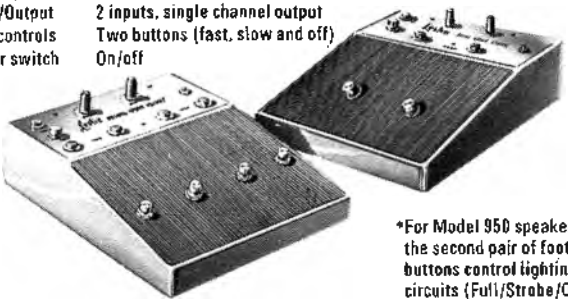
**910**



**Model 910**  
 Total Height 54½in  
 Width 28½in  
 Depth 20½in  
 Speakers 15in heavy duty bass, two 6 x 9in, one treble driver  
 Rotors Two (horn and wood bass rotors)  
 Amplifiers 100 watts RMS from 3 separate channels of amplification  
 Weight Upper module 80lbs. approx., lower module 106lbs. approx.

**No. 9370 Pre-Amp II**

(For use with Leslie models 825, 760)  
 Rotor Speeds Fast, slow, off  
 Input/Output 2 inputs, single channel output  
 Foot controls Two buttons (fast, slow and off)  
 Power switch On/off



\*For Model 950 speaker, the second pair of foot buttons control lighting circuits (Full/Strabe/Off).

**No. 9420 De-Luxe Pre-Amp**

(For use with Leslie models 910, 950)  
 Rotor Speeds Fast, slow, off  
 Input/Output 2 inputs, double channel output  
 Foot controls Four buttons. First pair control rotor (fast, slow, off). Second pair provide full or medium reverb, or "off"  
 Power switch On/off

**Leslie**  
 registered trade mark of CBS Inc.

**Leslie Speaker Division,**  
 Hammond Organ (UK) Ltd.,  
 Deansbrook Road, Edgware, Middlesex HA8 9BB  
 Sales office and general enquiries Tel: 01-952 7711

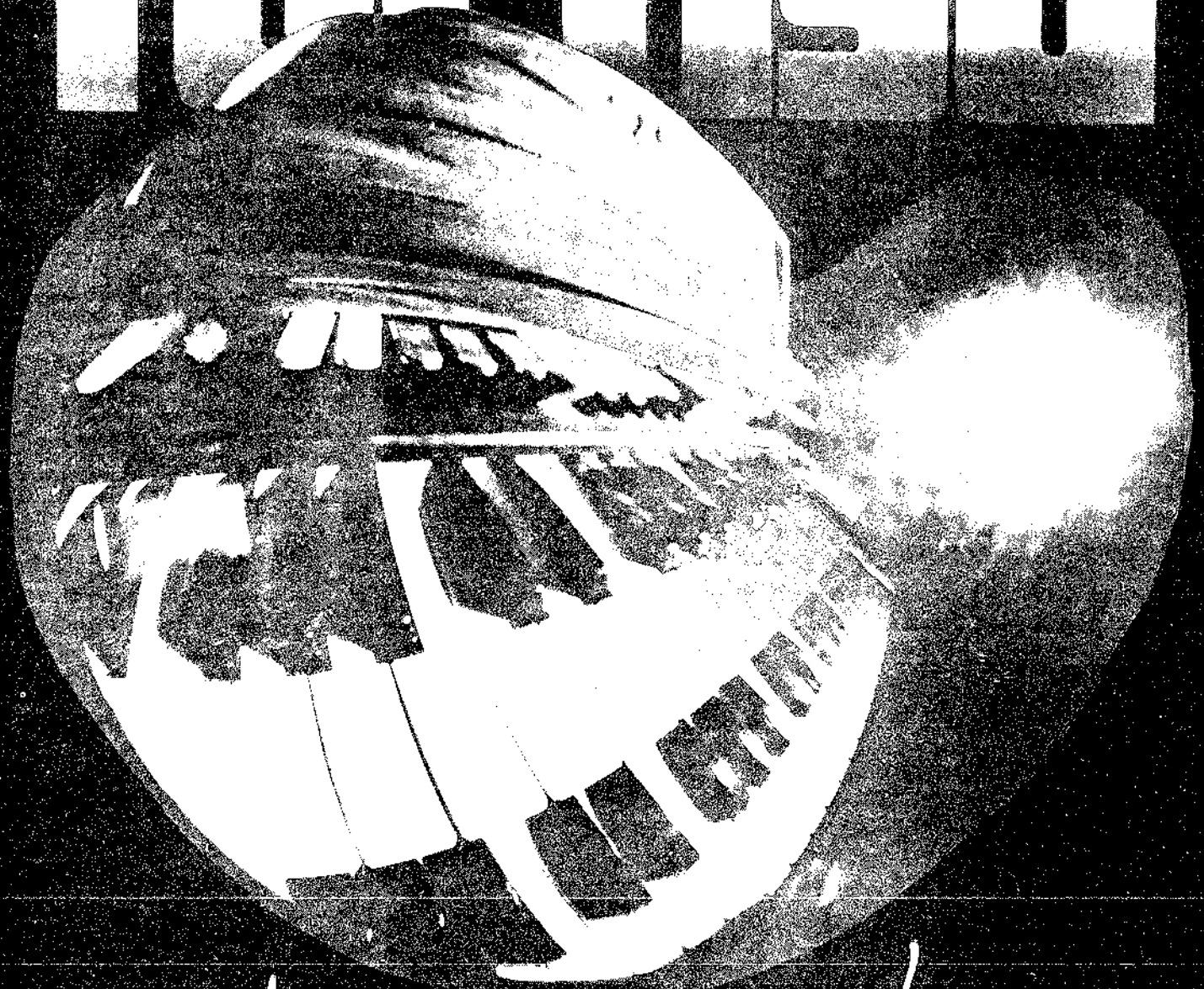
Please send me further details and the name and address of my local Leslie stockist.

Name \_\_\_\_\_  
 Address \_\_\_\_\_

IM7

Leslie Speaker Division, Hammond Organ (UK) Ltd.,  
 Deansbrook Road, Edgware, Middlesex HA8 9BB

# farfisa



*The name to play!*



**farfisa UK LIMITED**

Corringham Road, Gainsborough, Lincolnshire

Makers of Electronic Organs, Electronic Pianos,  
and ancillary equipment for the home and the professional.



# STUDIO DIARY

**ABBAY ROAD STUDIOS** . . . are pleased to announce that they now have two 24 track studios in operation . . . Cliff Richard has been producing Allan Shiers new single with Tony Clark engineering . . . Cliff Richard also working on his own album with Bruce Welch producing . . . The band Thingy are cutting a single, Peter Vince producing, Tony Clark engineering . . . Olivia Newton-John is laying some tracks for a new album, John Farrar producing, Tony Clark engineering . . . Magna Carta have been mixing a single with Ron Richards producing . . . Ann Mortifee is working on an album with Peter Bown engineering . . . Rinky Dink and the Crystal Set are producing a promotion tape for an album . . . Pink Floyd have been doing some overdubbing with Brian Humphries producing . . . John Leckie has been re-mixing the tracks recorded on Roy Harper's tour . . . Renaissance have been completing their album working with John Kurlander . . . Hollies working on tracks for their new album, Ron Richards producing and Peter Bown engineering . . . Disc cuttings . . . new Brian Ferry single, Linda Lewis album, Jack Harris single for Decca, all with Chris Blair engineering . . . Richard Langham cutting an album . . . Yin and Yan working on a new album . . . Eagles L.P. in the making

**CBS STUDIOS** . . . Singles being cut include Alan Love with producer Nicky Graham and engineer Dick Palmer . . . Eddie Buchanan for *Dino Company*, Nick Ricci producing, Steve Taylor engineering . . . Barry Reynolds for CBS with Dan Loggins producing and Dick Palmer engineering . . . A new band called River cutting a single with Dan Loggins producing and Dick Palmer engineering . . . Another band, the Mister Men working on a single too . . . Johnny Nash has been finishing bits off with Bernie O'Gorman engineering . . . Good Year Records working with a lady called Viola Wills, Mike Patto producing . . . Bugatti and Musker who have been on tour with Tammy Wynette have been recording an album with producer Michael Gore and engineer Bernie O'Gorman . . . Vince Hill has been finishing off an album with Paul Phillips producing and Mike Ross engineering . . . Hudson Ford have been doing a recording for Granada T.V., Tom Allan producing, Bernie O'Gorman engineering . . . Bill Lesage, a jazz pianist, was recording for Trick Films, Steve Taylor engineering . . . Johnny Nash's company, Joda Enterprises, booked time for artist Gene Chandler, engineer Bernie O'Gorman . . . John Williams has been cutting an album, Paul Myers producing and Mike Ross engineering . . . Trentdale Management booked time for Andy Fraser who was working on an album with Doug Bogie engineering . . . Mickie Most has been producing Arrow for Granada Television with Dick Palmer engineering . . .

**CENTRAL SOUND STUDIOS** . . . Marianne Faithfull is cutting an album with Simaen Skofield engineering and Derek Wadsworth producing . . . Ziggy of the Rocky Horror Show has been recording, Simaen Skofield engineering . . . Ernie Bush, has been doing some mixing . . . Carol Forbes has been recording with Michael Jacobsen producing and Simaen Skofield engineering . . .

**IBC STUDIOS** . . . had a big surprise when the Osmonds landed on them to mix tracks for Top Of The Pops, all booked discreetly in cognito by Polydor, Mike Claydon engineering and Keith Bessey producing . . . Olivia Newton-John also laying tracks for Top Of The Pops . . . Chris Neal : cutting an album for Trinfold with engineer Hugh Jones, . . . Gary Benson doing some mixing for BNC Records, Dave Williams producing, Hugh Jones engineering . . . Peter Shelley has been recording for Magnet Records, Michael Claydon engineering . . . Status Quo with Quarry Productions doing some recording, Hugh Jones engineering . . . Manfred Mann's Earth Band were taping and overdubbing with engineer Andy Miller . . .

**KINGSWAY STUDIOS** . . . Roger Glover and Eddie Hardin are cutting a new version of "Strawberry Fields" on the Oyster label . . . Steve Hackett of Genesis is recording a new album . . . Andy Scott, of the Sweet, has been working on a solo single . . . Max Merritt and the Meteors have been overdubbing an album for Bell records, with Del Newman producing . . .

**LANSDOWNE STUDIOS** . . . Polly Brown has been in, recording with Gerry Shurry for A.T.V. music, John Mackswith engineering . . . The Pearls have been in cutting a prospective single with producer Phil Swern and John Mackswith . . . The Rubettes have been in with Wayne Bickerton producing, John Mackswith engineering . . . John Sinclair was in recording for Penny Farthing Records, with Larry Page producing, David Baker engineering . . .

**MARQUEE STUDIOS** . . . Work on a new Stephanie De Sykes album, Barry Leng producing, Geoff Calver engineering . . . Leslie Duncan's album, *Moonbathing*, engineered by Will Roper and produced by Jimmy Horowitz, is in the shops now . . . Will Roper is also working on some new material with Art Garfunkel, Richard Perry is producing; should be released later this year on CBS label.

**MASTER ROOM** . . . New singles from David Essex, Jeff Wayne producing . . . G.T. Moore is producing his own . . . Jim Capaldi is cutting a single . . . as are Dr. Feelgood . . . Don Maclean is working on an album . . . Bunny are cutting their first album, Chas Chandler producing them . . .

**PHONOGRAM** . . . Peters and Lee have been cutting some tracks with John Franz producing and Peter Olliff engineering . . . Scotty recording an album with engineer, Robert Golding . . . Johnny Wheeler and John Hanson have both been in recording new albums . . . Campbell and Law doing some overdubbing for an album . . .

**R.E.L. (EDINBURGH)** . . . have a new engineer Chris Giles, working hard for them . . . Dillinger were cutting some demo tapes with Neil Ross producing and Chris Giles engineering . . . The same team have been working on some radio jingles with Bright Red Tandem . . . The mobile unit has been out recording the Scottish Baroque Ensemble with Leonard Faridman producing . . . The Sharon Taber Band have been cutting a single with Neil Ross producing . . .

**ROCKFIELD STUDIOS** . . . A Dutch band, Solution, have been in with Gus Dudgeon, Pat Moran engineering . . . Barry Melton of Country Joe and the Fish has been recording with Dave Charles engineering . . . Budgie have been working on a new album with Kingsley Ward engineering . . . Likewise Horslips, with Fritz Fryer engineering . . . Kieran White has been recording with Dave Charles engineering . . . Hobo have been working with Pat Moran engineering . . . Jonathan Rowland has been producing Tim Rose . . .

**TRIDENT STUDIOS** . . . David Hentschel is producing a sound track for a film, Peter Kelsey engineering . . . Stephane Grappelli is cutting an album, Robin Lumley producing, Dennis Mackay engineering . . . Eddie Howell is working with the same team . . . Charlie have been in recording with producer Mike Stone and assistant engineer, Neil Kernon . . . Michel Polnareff has been working with Bill Schnee producing and Jerry Smith engineering . . . Starry Eyed And Laughing have been cutting an album with Dan Loggins producing and Mike Stone engineering . . .

**SCORPIO STUDIOS** . . . Procul Harum have been mixing and overdubbing with John Jansen engineering . . . Carl Palmer was in for an afternoon mixing and recording, Bill Schnee engineering . . . Howard Blake has been working on some classical sounds with Peter Hoskins engineering . . . Street Walker have been doing some remixing on an album . . .

**WESSEX STUDIOS** . . . Mike Batt and Vaughan Thomas recording . . . Warner Brothers have been in with a new band, Ritzi, working on an album . . . □

DICK JAMES MUSIC LIMITED  
RECORDING STUDIOS

MCI/24 INPUT/24 GROUP OUTPUT CONSOLE; MCI 24/16 TRK MACHINE

COPYING SERVICES AVAILABLE: —

COPYING TAPE TO TAPE  
COPYING TAPE TO CASSETTE  
COPYING TAPE TO 8 TRACK CARTRIDGE  
COPYING DISC TO TAPE

STUDIOS OPEN 24 HOURS/DAY, 7 DAYS/WEEK  
RATES AVAILABLE ON REQUEST

*contact*  
*Vivienne Simpson*  
*01-836 4864*

DICK JAMES MUSIC LIMITED  
RECORDING STUDIOS



JAMES HOUSE 71-75 NEW OXFORD STREET LONDON WC1A 1DP  
TELEPHONE 01-836 4864 CABLES DEJAMUS LONDON WC1  
TELEX 27135 (DEJAMUS LONDON)



**DICK-JAMES MUSIC LIMITED  
RECORDING STUDIOS**



# DJM Develops

It's sound economic sense for a recording company to set up its own recording studio. One of the biggest overheads the company suffers is recording bills and the investment necessary is quite rapidly repaid. Few studios have grown quite as quickly as DJM studios.

The DJM Records story is now a well documented chapter in the history of the music business. In the more than five years that the label has been in existence, the company has scored hits with artists like Elton John, Blackfoot Sue, Edward Woodward and many others. Many of those artists have recorded in DJM's own studios and DJM supremos Dick and Stephen James have authorised enormous expansion in the studio department in the last 18 months.

Studio Manager John Eden: "One of our main problems is getting across the point that the studio has changed out of all recognition. People still think of us as being a small house studio which only DJM artists use. In fact, in the last 24 months we've installed equipment equal to almost anything available in London. We're now 24-track with MCI machines and an MCI desk. We've just added 12 channels to our desk making it a 36 channel console group in to 24 out."

Expansion at DJM Studios was a welcome necessity. Greater and greater technical demands were being placed on the studio by both outside clients and house artists. In order to satisfy this demand over £100,000 has been poured into the studio.

Despite the comparatively small size of the studio — it was designed especially for group use, not for orchestras — the studio has been undertaking all types of music recording work, slipping brass section and small string sections in with surprising ease.



## F760X

COMPEX-LIMITER

*Our  
contribution to  
the success of  
DICK JAMES MUSIC*

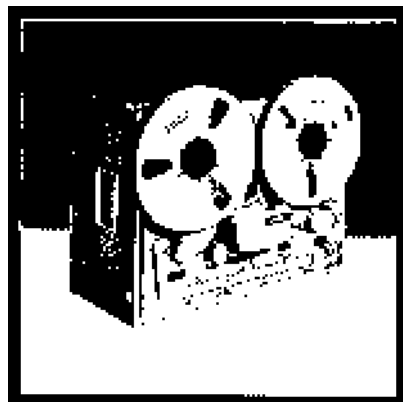
*Why not let us do  
the same for you!*



### AUDIO DESIGN RECORDING

41 Prospect Street, Caversham,  
Reading, Berks.  
Tel: Reading (0734) 84487

*The versatile STUDER B62  
combining operational simplicity  
with proven reliability*



*Chosen by DJM STUDIOS  
and other discerning companies  
throughout the world*

---

*F.W.O. Bauch Limited  
49 Theobald Street  
Boreham Wood, Herts.  
Tel: 01-953 0091*

# Success breeds success.

**3M, makers of Scotch 206 Mastering Tape  
Congratulate Dick James and DJM Studios.  
A satisfied and successful customer.**



One of the most enviable conditions within the studio administration is that any spare time not sold to outside clients is taken up by house artists. Thus John and his staff are kept busy 100 per cent of the time.

"At the moment our time is split 50/50 between outside clients and house bookings with the emphasis slightly on the outside work. That is about comfortable for us. At the moment if anyone calls to book a session I'm looking six weeks or two months ahead and that's the way it should be, I suppose."

The recent expansion in the control room has added considerably to the consoles flexibility. "We're using the extra 12 channels for bringing up effects and things like that," explained John. "We've also added the usual extra compressor and limiters and outboard controllers so that we can use the channels for any re-insert we choose."

"MCI market an extension package for their 24 channel desk which tacks on so it looks just like a 36 channel desk. We've made room by removing the producers' table and just leaving them space for a coffee cup."

Recent months have seen a wide variety of artists tripping through the DJM sound-proofed doors. The list includes Geno Washington, Moon Williams, John Richardson and Alan Williams of the Rubettes, Blodwyn Pig, Tremeloes, and Blackfoot Sue.

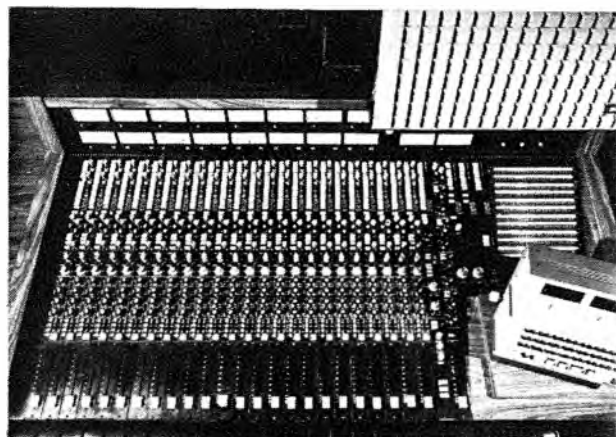
Like most good engineers and studio managers, John Eden's personality is responsible for the success of the studio. Recording is an intensely personal thing and the relationship between engineer and client is an important aspect of a successful bookings sheet.

Before joining DJM two years ago, John was an engineer with Marquee Studios in Wardour Street

*continued on page 56*



## FELDON'S EQUIPMENT IN SITU



**MCI**

\* We also supply JBL Monitors

**Mixing console & Multi-track tape machines  
Supplied to DJM STUDIOS by FELDON AUDIO**

**Also available for your studios**

FELDON AUDIO LTD.  
126 Great Portland St.,  
London W1N 5PH.  
Tel: 01-580 4314



*Feldon Makes Sound Sense*





## THE AUTO-TUNE STORY

*The announcement of the Arbiter Auto-Tune drum kit is of great interest to all drummers. It's the first mass-produced drum available with an auto-tune system that dispenses with conventional head adjustment.*

*Whether or not drummers accept the innovation as a major breakthrough has still to be discovered, but there is little doubt that it is an extremely important breakthrough in drum design. Here Ivor Arbiter, the drum's creator, talks about the instrument.*

*How did you come to invent Arbiter Auto-Tune drums? Having been around drummers for a very long while and having been associated with drum makes like Trixon, Ludwig, Gretsch and Rogers - I also designed Hayman drums from scratch - I felt that percussion was going forward in the area of stands, hi-hats and the*

metalwork generally, but I felt that in shell construction, there was very little to choose between the various makes. In many ways a drum is a drum. The heads that are being used on the majority of American drums are being supplied by one manufacturer and a lot that was said about different drum sounds was really just very personal.

So I thought that the time had come for some new thinking about drums themselves, I was very interested in fibre-glass shell construction because so many of the great Latin players all believe in fibre-glass as a material - sound wise it projects beautifully. Rather than going through the laborious sticking on of pretty colours on to wooden shells, I thought it would be better to work in self-coloured fibre glass. I also have a boat that is constructed of fibreglass and that's survived a force 7 gale so I was convinced that fibre-glass is a strong material.

One evening I went home and I was having a meal and I was just thinking generally about what is new that could be done with percussion and there was a jar of pickles on the table. It occurred to me when I was closing the jar that surely the screw top idea was the way to tension the head - screwing the bottle top on. From that moment I couldn't get the thought out of my head. I thought why are we pulling down on the head when we should be screwing it down? Why don't we go around and have a screw type method?

So we set about trying to get somebody interested in making up some prototypes, using a fibre-glass shell and that was how it all began.

*It must have been a problem finding the right method for the screw process?*

At first thought it would seem a very simple process, but we had people like the Bournemouth School of Technology working on it and one of the biggest problems is that there are many tons of pressure exerted in this system. In the end, we came up with the most simple idea imaginable. We have one basic die-cast and one cog that fits all drums.

*Can you explain precisely how the system works?*

It appears to be a traditional counter-hoop. Instead of it pulling down and having holes drilled in it for tension rods, it has some flanges welded inside the hoop which meet flanges that are screwed onto the fibreglass shell and it is really any bottle top. If you look at any jar of pickles, you'll see the screw system and that's all it is. You put a ratchet on the cog, turn it around and it tensions.

*What was the biggest problem you had to overcome?*

When a snare drum is pulled up really tight, like the Scottish and Gaelic players like it, I think you've got four to five tons of pressure and the problem was to be able to tension the drum with a lever without going to the gym everyday to build your muscles. We also didn't want to complicate the mechanism with levers and small reduction gears. Keeping it simple was the main problem.

*To what extent have you worked with drummers during the development period?*

Well, during the Hayman period I worked very closely with drummers and I think I know the drummer's mentality, I think I know how they function. Over the years I've discovered they're not gimmick prone, it's pure function. The bigger the screws, the bigger the bolts, the bigger the nuts, the better. So really what I've done is tried to condense

working with 20 drummers and I picked out Carl as a typical modern drummer. The fact that he's interested in the art of percussion as a whole is of extra help. He has a lot of pre-conceived ideas about how a drum should be and he's probably been the severest critic we've had. He'd like us to wait for another 12 months before we release them now, but that's where the business man in me comes out. I'm confident that what we produce in the initial stages will be perfectly adequate. Obviously as time goes by we will improve, like everything else. *Carl Palmer says that the drum is the most musical he's seen, was that in your head when you were designing the thing?*

First of all we were thinking about sound. That is the first thing you learn in drums, they've got to sound as good as other drums. Fibre glass has always excited me as a medium for percussion because it's hard, the majority of good sounding drums are sprayed internally with various polyurethanes. I think the screw idea really started off as a cost saving experiment, commercially speaking. The fact that one didn't have to have all these chrome lugs - after all they're a complete waste of time, they stick out and what function were they performing? So it started off as a good sounding, cheaper to produce, modern idea. But what happened is that we found that we could get two octaves of tuning out of a drum instantly. The fact is that one could tune the bottom head easily as you sit behind the drums.

One of the things that I should have mentioned about the drum is that if it's a 13 inch drum then it's got a 14 inch shell to allow for the hoop going over, so it's got a larger volume of air in it than is usual at that size.

**AMPS  
SPEAKERS  
KEYBOARDS & DRUMS  
GUITARS  
DISCO'S**



15 min. West End -  
- easy parking.

**Introducing the "MEL"  
range of Valve Amps**



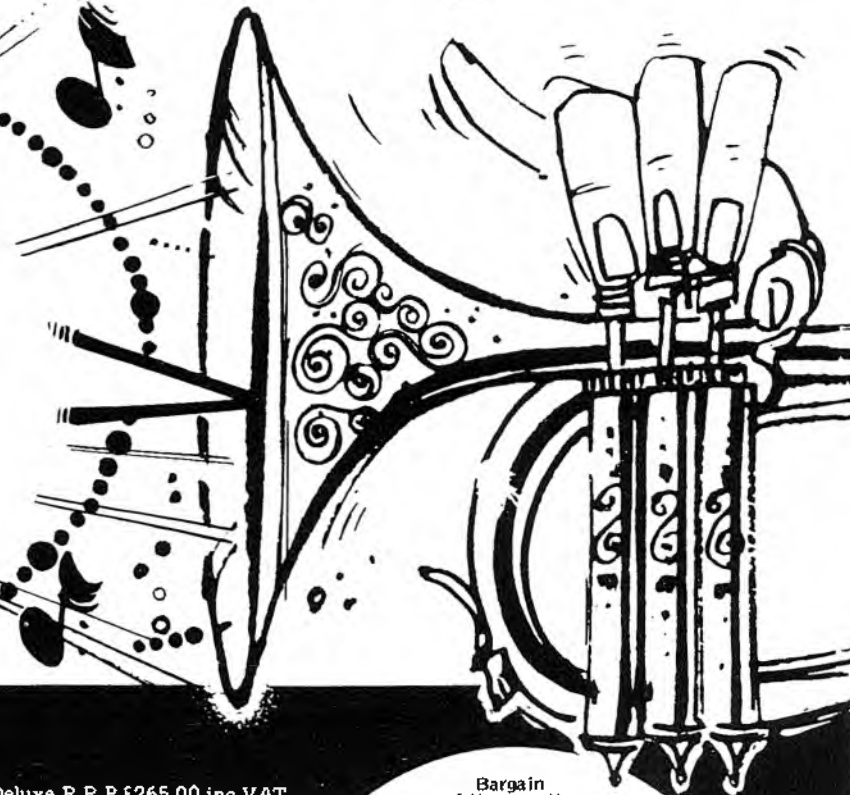
FROM AROUND £90. Inc. VAT.

**MUSIC EQUIPMENT LTD**

55 Camberwell Church Street, London, SE5. Tel: 01-701-2270

# We're blowing our own trumpet!

WE CAN HIT THE  
HIGH NOTES WITH THE  
LARGEST SELECTION OF  
ELECTRONIC KEYBOARDS  
in the SOUTH of ENGLAND



★  
Bargain  
of the month



The fantastic Galanti X360 R6 with sustain  
3 pitch levels and automatic rhythms.  
R.R.P. - £417.00 inc. VAT.  
Western Music Price - £350.00 inc. VAT.

The Insta-Piano Deluxe R.R.P £265.00 inc. VAT  
Western Music Price £229.00 inc. VAT.  
& Western Music Price includes sustain pedal,  
legs & carrying case.

Bargain  
of the month



★ **WESTERN MUSIC CO. LTD.**

130/132 King Street, Hammersmith, W6 0QU

53/59 High Street, Croydon, Surrey  
50 The Broadway, Wimbledon, SW19  
14 Westow Hill, Upper Norwood, SE19  
28 Electric Avenue, Brixton SW9

01-748-5824  
01-748-1446  
01-688-1248  
01-540-0494  
01-670-9289  
01-733-7326

ALL KEYBOARDS SOLD WITH FULL SERVICE GUARANTEE

CREDIT READILY AVAILABLE & PART EXCHANGE ETC.

Turkish Baths are supposed to be good for the body and good for the mind, but nobody said anything about business.

Twenty (or so) years ago Lou Dean was a regular visitor to Turkish baths and his fellow perspirer was Al Freedman, the man who for many years ran an accordion shop at Kings Cross. For years Al was asking Lou to go into the business with him but Lou – an accomplished semi-pro musician – was happy managing a branch of Stone's the electrical retailers. Eventually Lou gave in to the challenge, joined Al Freedman Ltd and started a career in musical instrument retailing that was to lead to the well known London chain, Western Music Co.

Lou Dean's life had always been very musical. During WWI his father was a musician in the Merchant Marine and an expert on string instruments like the guitar. Little Lou was brought up in a heavy musical environment, taking violin lessons himself, while his sister became a professional vocalist, his brothers professional musicians.

"But it wasn't the violin I wanted to learn," recalls Lou from his head office and spacious keyboard showroom in Hammersmith's King Street. "I wanted to play the clarinet. My father insisted that I should learn the violin for a year and if I did O.K. on that I could start the clarinet."



**Lou Dean** (Western Music)

Lou's undoubted musical talent quickly exhibited itself and by the time WWII arrived he was playing saxophone in the Army.

By the 1950's he had gained wide experience with most sorts of musical instruments so when he decided to go into partnership with Al he was well equipped to sell not only accordions, but a wide variety of instruments.

Like so many partnerships do, this one was to split up in the late fifties and Lou struck out on his own.

"I settled on Hammersmith because it was an area with a good cross section of people and I felt that there would be a big musical market here." Lou's judgement was quickly confirmed and trade at the little shop at 150 King Street was soon to pick up. "It was very slow in the beginning, however," says Lou. "It it was not for the generosity of my suppliers, I'm sure we wouldn't have lasted a year. They helped me to survive and I don't think the same thing would happen today."

After the skiffle and trad jazz boom of the late fifties, the trade suffered a recession during 1961 and 1962. Groups were less popular than solo singers and it was this decline in trade that led Lou to a decision that would permanently affect the future of Western Music.

"I decided to specialise in electric organs. From accordions we naturally progressed to small reed organs

*Continued on page 61*

**DEALER OF THE MONTH**

# JUST ONE OF THE SEVEN WONDERS FROM THE GALANTI MUSIC WORLD

## *Specifications:*

UPPER KEYBOARD: 44 notes F - C.  
LOWER KEYBOARD: 44 notes F - C.  
PEDALBOARD: 13 notes C - C - Bass 8'/8' + 16'.  
UPPER MANUAL: On/Off Sustain - Flute 16' - Flute 8' -  
Flute 4' - Cello 16' - Violin 8'.  
LOWER MANUAL: Flute 8' - Diapason 8' - Viola 8'.  
CONTROLS AND EFFECTS: On/Off - Balance lower - Bass  
volume - Reverb - On/Off Vibrato.  
OUTPUT POWER: 40 W. m.p.  
LOUDSPEAKER: 12" heavy duty special design.  
JACKS: Headphone and tape recorder.  
DRUM 6: with volume and tempo control, automatic alternated  
bass and accompaniment on the first two octaves of the lower  
keyboard.  
DIMENSIONS: Length cm 94 - Width cm 52 - Height cm 85.

*Lid optional.*

## *GALANTI ORGAN MODEL X360 DE LUXE*

The exciting new *Galanti X360 DE LUXE* organ offers a versatile and comprehensive specification of the sort one would generally only expect to find in instruments costing very much more. The authentically voiced tones can be used singly or in combination to provide many delightful effects and the built-in Automatic Rhythm Unit provides drum and latin percussion accompaniment to make you sound like a whole band!

The *X360 DE LUXE* organ is attractively presented in a durable high quality simulated wood veneer cabinet and is supplied complete with a matching bench. No matter whether you are a complete beginner or an experienced musician, the *X360 DE LUXE* organ will provide you with many years of creative and enjoyable entertainment.

IT PAYS TO BUY QUALITY PRODUCTS  
FROM WESTERN MUSIC

## COME AND SEE THE OTHER SIX AT:

WESTERN MUSIC CO. LTD.

Head Office:

130/132, King Street,

Hammersmith, W.6.

Phone 01-748 5824

or 01-748 1446.

Phone Head Office for details  
of your nearest branch



# Lou Dean

and from there to little electronic models. I thought that there was going to be an explosion in these instruments because of the future of electronics. I was initially trained as an electrician and I had a great interest in electronics. For that reason I was interested in building up the electronic side of our trade and so I started stocking the few organs that were then available.

"At that time there were only three organ dealers in the whole of London so I didn't have that much competition, but then there wasn't that much trade in organs either."

Lou's business really took off with the group boom. 1963 saw the beginning of an almost hysterical trade period, with virtually every type of musical equipment selling like there was no tomorrow. Lou was still supplying all kinds of musical

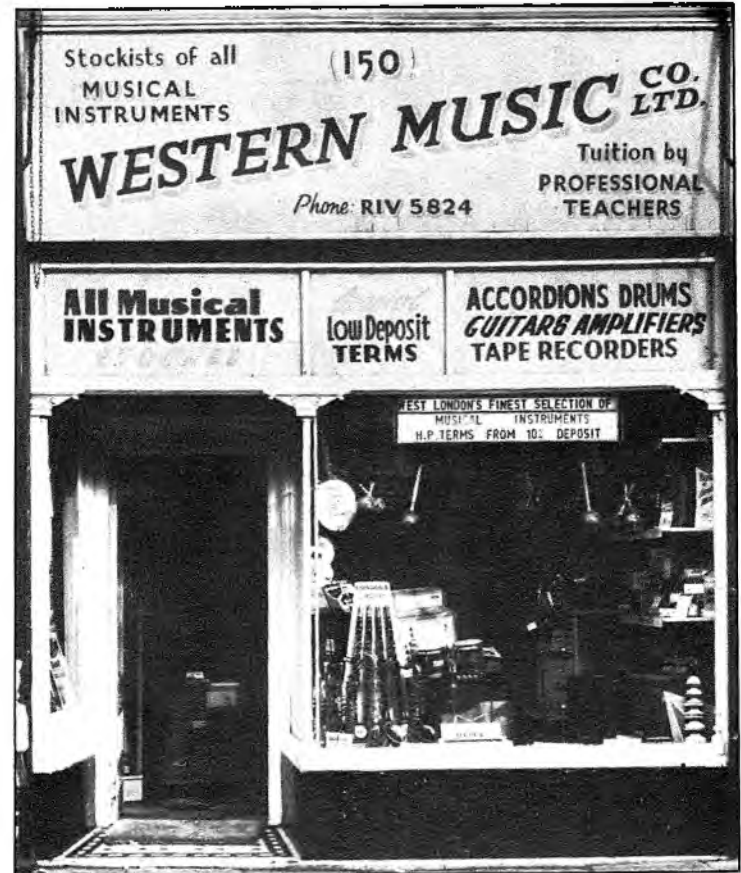
instruments.

"We all worked incredibly hard at that time, helping young people make music. We'd spend night after night in church halls and rehearsal rooms working with bands and getting the right equipment for them. All the guys used to visit us in those days, the Who, Adam Faith, Joe Brown, the list is endless. Sometimes they had money, other times they didn't but we'd always try to help and I think they appreciated that."

In the wake of the group boom, prosperity of the mid-sixties pointed the way for Western Music. Manufacturers were taking the organ market more seriously and organs like Lowrey, Hammond, Vox and Farfisa were becoming sophisticated instruments.

More and more people were buying these instruments for home entertainment and it was in this area that Lou specialised. Another

*continued on page 63*



*Lou's original shop in 1959*

See a Selection of FARFISA Electronic Organs at WESTERN MUSIC Branches at : Hammersmith, Wimbledon, Brixton, Croydon and Upper Norwood.

# farfisa

*The name to play!*

**farfisa UK LIMITED**  
Corringham Road, Gainsborough, Lincolnshire

Makers of Electronic Organs, Electronic Pianos,  
and ancillary equipment for the home and the professional.

# Leslie®

SPEAKERS

The choice of  
professionals  
the world over

see the full range at  
**WESTERN MUSIC LTD.**  
130-132 King St.,  
Hammersmith, London W6.



# kimball®

ORGANS

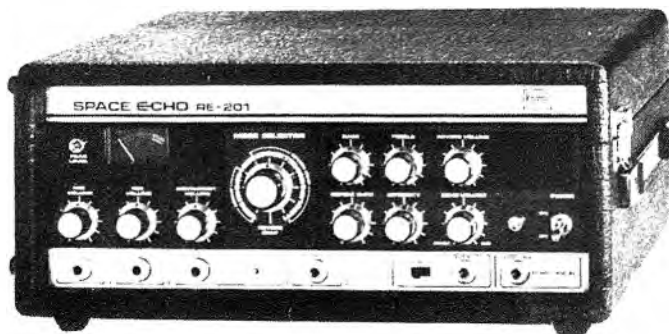
When you buy a  
**Kimball Swinger**  
you're getting more  
organ for your  
money and you're  
getting it from one  
of the largest  
keyboard companies  
in the world.

See the Kimball organ range at  
**WESTERN MUSIC CO LTD**

130/132 King Street, Hammersmith, W6 0QU  
53/59 High Street, Croydon, Surrey  
50 The Broadway, Wimbledon, SW19  
14 Westow Hill, Upper Norwood, SE19  
28 Electric Avenue, Brixton, SW9



# Roland



We can't promise the **ROLAND**  
**SPACE ECHO** unit has been used in the  
heavens, but its used like hell on earth

Full range of Roland professional units available from  
**WESTERN MUSIC**

branches at:-

130-132 King Street, Hammersmith

50 The Broadway, Wimbledon

53-59 High Street, Croydon

14 Weston Hill, Upper Norwood

TRADE DISTRIBUTORS:

**hornby skewes**

## BRING IT ON HOME. THE BREADWINNER.

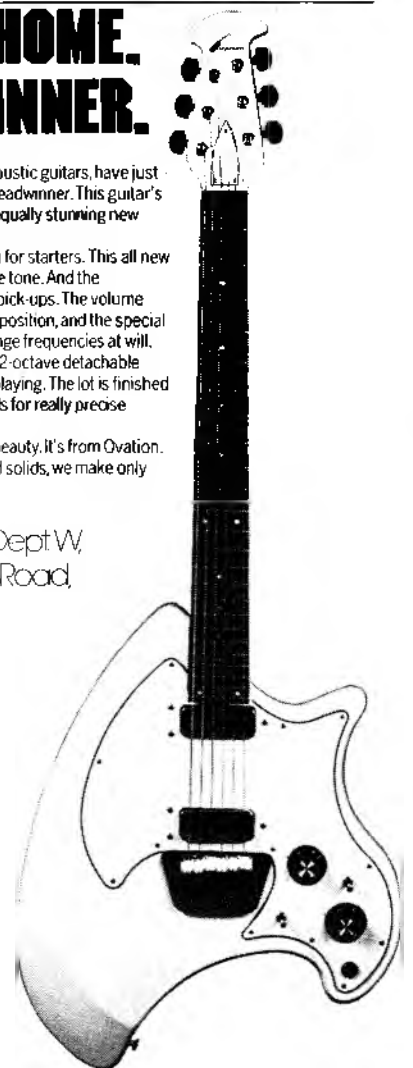
Ovation, who make those famous acoustic guitars, have just developed a brand-new solid body.... The Breadwinner. This guitar's got it all. A stunning body design plus many equally stunning new features.

Check out the F.E.T. Pre-Amplification for starters. This all new Pre-Amp is built-in to give an extra edge to the tone. And the Breadwinner features two powerful Toroidal pick-ups. The volume and tone controls are in a new, easy-to-reach position, and the special mid-range switch allows you to boost mid-range frequencies at will. The unique Tri-point mounted bridge and full 2-octave detachable ebony neck will add ease and speed to your playing. The lot is finished off with fully-chromed Schaller machine heads for really precise string control.

The Breadwinner. It's versatile. It's a beauty. It's from Ovation. We've got a reputation to keep. Acoustics and solids, we make only the best.



Rose-Morris & Co Ltd, Dept W,  
32-34 Gordon House Road,  
London NW5 1NE



# Lou Dean



branch of Western Music was opened in Croydon. "We opened that in 1964. It's more like a musical department store than a shop, there are over 5,500 square feet and Gerry Rodley became our first branch manager. Croydon proved itself to be as lucrative an area as Hammersmith and within the next five years Western opened another "mid way" branch at Wimbledon.

Western Music's shops are really more showrooms than shops. Much of the selling of the superb keyboards stocked by the companies is done outside of normal trading hours at the special promotions given by Western at major venues around West London.

In the last ten years the company has regularly hired

venues like Hammersmith town hall and in front of an invited audience, top organ stars demonstrate a range of keyboards.

"We arrange the venue, the manufacturer provides the performers and the organs," said Lou. "Our promotions are usually a huge success and they're very important to our trade. Perhaps the most important thing for us is our organ club. This is a social club for people who have bought organs from us and who want to keep in touch not only with us, but with each other. The members have a Midsummer Ball, a monthly news letter, annual dinner and dance and a monthly meeting which keeps the thing very much alive. At Croydon the members

meet on the first Monday of the month and here (in Hammersmith) we meet on the second Monday."

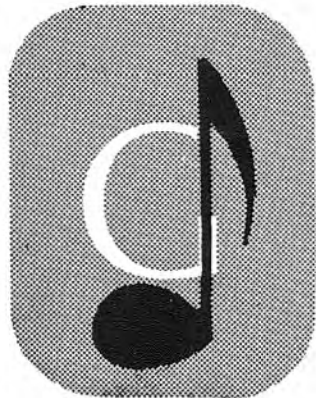
Although the clubs were Lou's idea, he admits that he followed the lead of American organ retailing in setting up a facility for home organ users to compare notes and a "keeping up with the Jones's" situation arose.

The main organ lines that Western Music sell today are Lowrey — a well established top professional range of organs, Kimball, a new range about which Lou is very excited, Farfisa "always an excellent seller", Galanti, Gulbransen and Haven.

At Hammersmith the visitor is faced with a staggering array of keyboards but to prove Lou is still very much

on the current scene there's 20 or 30 guitars on the walls, a 100 watt Fender amp and a full accessory bar which stocks an incredible selection of strings and bits and pieces.

The Western Music chain has now grown to five shops, Hammersmith, Croydon, Wimbledon, Upper Norwood and Brixton and the continuing success of the operation is a tribute to Lou's intuitive feel for the music industry. □



## Western Music Co. Ltd.

130/132 King Street, Hammersmith W6 OQU Tel: 01-748 5824 (Head office)  
01-748 1444

main dealers for

## Gulbransen

'the finest sound in organs'

CBS MUSICAL INSTRUMENTS

A DIVISION OF COLUMBIA BROADCASTING INC.

## WURLITZER

THE MUSIC PEOPLE

&

## WESTERN MUSIC COMPANY LTD.

See the full range of SPRITE & SUPER SPRITE and let Western Music introduce you to the 'WONDERFUL WORLD OF WURLITZER.

PART EXCHANGE WITH PLEASURE - EASIEST H.P. TERMS - EXPERT TUITION.

CHOOSE ANY MODEL FROM THIS FABULOUS RANGE & SECURE ANY ONE AT 8% VAT PRICES.....

OFFER DEFINITELY CLOSES 30th JUNE 1975.



MODEL 370  
SUPER SPRITE

130/132 King Street, Hammersmith, W6 OQU 01-748 5824  
01-748 1446  
53/59 High Street, Croydon, Surrey 01-688 1248  
50 The Broadway, Wimbledon, SW 19 01-540 0494  
14, Westow Hill, Upper Norwood, SE 19 01-670 9289  
28 Electric Avenue, Brixton, SW9 01-733 7326

# CARLSBRO SOUND CENTRES

182-184 Chesterfield Rd. North Mansfield, Notts.  
Tel: Mansfield 26976/26199

13, Berkley Precinct, Ecceshall Rd, Sheffield.  
Tel: Sheffield 663862

**OPEN 6 DAYS A WEEK, 9.30 a.m. to 6.00 p.m.**

The best and cheapest selection of gear in the country.

Huge discounts off list prices on many items.

## ITEMS STOCKED

**GUITARS:** Over 200 always in stock.

Fender Gibson, Gretsch, Rickenbacker, Guild, Hayman, C.S.L. Jedson, Ibanez, Levin, Ned Callan and many more.

**Amplifiers:** By Carlsbro, Orange, Marshall, Hi-Watt, Peavey, Ampey, Fender, Acoustic, Vox, H/H, WEM, Traynor, Simms Watts, Laney, etc.

**Drums:** Over 20 kits always in stock. Premier Main Agents. Ludwig, Gretsch, Slingerland, Hayman, Olympic, Pearl, Beverley, Fibes, Rogers, Paiste, Zildjan.

**Disco Lighting:** Specialists in Disco supplies. Carlsbro, SAI, Squires, Simms Watts, Pulsar, Comsar, Image, etc.

**Keyboards, Synthesisers.** Moog, A.R.P. Elka-Orla, Mini Korg, Crumar, Wurlitzer.

**Electric Pianos.** Fender Rhodes, GEM, Diamond, Farfisa, Haven, Selmer, Vox, etc.

**Effects.** By Maestro, WEM, Binson, Coloursound, Top Gear, etc.

VAST STOCKS OF SECONDHAND EQUIPMENT ALWAYS IN STOCK

10% Deposits, up to 3 yrs. to pay. Large Cash discounts. Access, Barclaycard, Progressive, Provident, etc.

WE ARE THE ONLY FENDER SOUNDHOUSE IN THE COUNTY.  
RICKENBACKER SOLE AGENTS.

**IT WILL PAY YOU TO PAY US A VISIT**

*Dave Simms*

## MUSIC CENTRE

1-5 The Grove, Ealing, London W5.5DX.  
Telephone: 01-560 0520

WE CARRY LEADING MAKES OF AMPS, ELECTRIC AND ACOUSTIC GUITARS, DRUMS, BRASS AND ACCESSORIES.  
WE BUY, SELL, EXCHANGE AND SERVICE ALL MUSICAL GEAR. REPAIR AND REFURBISH GUITARS, CUSTOM BUILD LIGHTING AND DISCOS - AND SERVE FREE COFFEE (IT'S TERRIBLE!) - BUT WE DO HAVE FANTASTIC BARGAINS.

For instance

HOW DOES A 100 WATT  
4 CHANNEL P.A. AMP, WITH  
NEW! A PAIR OF 2 x 12 COLUMNS NEW!  
FOR £225.00 (INC. VAT)  
GRAB YOU?

*it's just a sample of*

## DAVE SIMMS MUSIC PRODUCTS

A RANGE OF PROFESSIONAL EQUIPMENT BUILT BY GUYS WHO REALLY CARE - AT PRICES THAT WOULD HAVE BEEN GOOD 10 YEARS AGO!

Send S.A.E. for new Dave Simms brochure

H.P. ARRANGED, BARCLAYCARD, ACCESS MAIL ORDER ANYWHERE  
TRADE AND EXPORT ENQUIRIES WELCOME  
FRENCH, GERMAN, ITALIAN AND AMERICAN SPOKEN  
A REALLY PERSONAL SERVICE FROM  
DAVE SIMMS, JIM, PAUL, DICK & JOHN.

# COUNTDOWN

## Manchester's Newest 8-Track Studio

8-Track Brenell—Allen and Heath 24 Channel Mixer  
Otari—Revox—ADR Autophase—Audio and Design  
Compressors, Limiters—AKG—Neumann—Calrec

8-Track.....£12.00 per hour  
8-Track reduction.....£10.00 per hour

The following facilities and services are available on request:

GRAND PIANO, SYNTHESISER, MELLOTRON  
COMPOSERS, ARRANGERS, SCRIPT WRITERS,  
SESSION MUSICIANS, SESSION VOCALISTS.  
(Including the RED HOT Female backing vocals!)

Why not call in and see what's happening  
or ring SHARON on: 061-832-3339.

COUNTDOWN RECORDING STUDIOS  
104, High Street, Manchester, M4 1HQ.

# Tony Saville

TONY SAVILLE MUSIC CENTRE,  
Peter House,  
Lower Moseley Street,  
Manchester 2.  
Tel: (061) 236-4012.

## A BIT OF THE OTHER!

What do you think of when you visit a music shop? Perhaps nothing else but that nice new Strat., or that new hypersensitive, Solid State Super Power Amp. That, of course, is the first consideration, but we reckon you should think about 'the other'!

SERVICE that is. It could mean the difference between being left out on a limb in silence if something happened to your new amp, or being able to borrow something and still make your gig.

SERVICE is the thing we aim to give along with a friendly atmosphere. So we don't just make sales, we make customers who become mates and perhaps come along again to see us as well as our gear.

If you've ever been out on a limb think about 'the other', then come along and talk to us. We're beginning to throw some light on the music scene.

see you

Tony & Terry

# Music Centre



# DEALER NEWS

**CARLSBRO SOUND CENTRE** in Nottingham, under the capable direction of Keith Woodcock, are defying most of the gloomy economic forecasts. "We've sold our third disco rig today," Keith told us when we rang him, "so it can't be bad!"

An addition to the Sound Centre's already extensive range of sound equipment is the Star range of cabinets, which are especially made to the customers' specifications.

Local bands and club artists are popping in regularly to the shop. These include Jigsaw and Follyfoot, and Paper Lace were in recently to buy a P.A. system.

One of the post V.A.T. surprises for Carlsbro was the increase in the sale of keyboards, of which they stock a good selection, including Fender-Rhodes, Wurlitzer and Farfisa. Another surprise is the volume of sales of coloured Fender guitars - both Stratocasters and Jazz Masters. Green, purple, and similarly outrageous hues have proven a winner over the last month.

As a Gibson dealer, the Sound Centre naturally do a brisk trade in Gibsons, and they stock a broad selection of old and cherished second-hand models as well.

**CHINGFORD GROUP GEAR** in Chingford is part of the Organ Studios chain of shops but deals exclusively with bands, their equipment and problems. A major part of the shop's activities is

concerned with servicing, and through their service they deal with major bands including Horslips, TYA, Procol Harum and ELP.

Main lines at the shop in amplification are Fender, Marshall, Yamaha, and also stocked are Carlsbro, Sound City, Hi-Watt, Peavey and Leslie. As the shop is both a Fender Soundhouse and a Gibson Star Dealer, there is naturally a large range of Gibson and Fender guitars available. 20 Stratocasters are on the walls, as are 12 Les Pauls and 12 SGs.

Ace Tone, Gem, Diamond, Hohner, synthesisers from Roland, Moog, Arp and Mellotrons are stocked.

The "While you wait" service on most gear problems attracts a considerable number of players into the shop and the fact that Chingford also has a Hammond organ franchise is also a great attraction. In percussion the stock includes Ludwig, Pearl, Rogers and Olympic, and all the usual accessories are stocked.

**CUSTOM SOUND** of Crewe specialise in sound equipment for musicians at all levels of skill, but they also manage to provide a good range of musical instruments. They hold both Gibson and Fender franchises, but the big surprise is the number of banjos that they carry in stock. Manager Pete Johnson plays the banjo himself, and there are more than 30 models in the shop, including Clifford Essex, Windsor, Stewart and Maybell models. There are also a number of

hand-built guitars from Gordon Smith of Manchester.

There is a 24-hour repair service in operation, and Custom have provided a lot of equipment for local groups such as China Grove, Wheels, Blister and Collage, as well as Strife and Sweet Sensation. The latter's producer, Des Parton, is a regular in the shop.

With a friendly atmosphere promising no hassles, and plenty of time for a chat and a cup of tea, Custom Sound are staffed by an expert staff of four and an enchanting secretary, all ready to help the customer.

**HOBBS MUSIC** of Lancaster are a well rounded music shop with something to offer for all musicians. The emphasis however, is on guitars. A Gibson Star Dealer, Hobbs also offer a unique selection of hand-made guitars, including the Petersen range, which are made in Barrow. They also hold the Northern franchise for Peter Abnetts hand-made guitars, banjos, hurdie-gurdies and dulcimers. Other ranges include Levin and Yamaha, and the Little Buddy range of pedal steel guitars.

Hobbs pride themselves in their fine range of old guitars and collectors items, and when we spoke to them, these included an Epiphone Texan, and a Reliance Cameyer Banjo.

Their percussion range includes Promuco and Star kits, and shop manager Bruce Hobbs is quick to point out that the Star accessories, cymbal

continued on page 67



## AMPEG SR6

### Sound Reinforcement System IS HERE



The console power amplifier output is 120 watts RMS minimum. Frequency response is 20 Hz to 20,000 Hz  $\pm 1$  db at all power levels. Features include a numerically graduated master reverb level with one detented 'set' position and lo and hi band continuously variable anti-feedback notch filters. Speakers are 8" special design with high power dome tweeters.

Write for leaflet to:

**Boosey & Hawkes (Musical Instruments) Ltd.**,  
Deansbrook Road, Edgware, Middlesex HA8 9BB



# SOUND PAD

Music Centre

0533 20760



LARGEST SELECTION OF GUITARS, AMPS  
DISCO'S, PERCUSSION, ELECTRONIC PIANOS  
AND SYNTHESISERS.

SOLE AGENTS FOR AMPEG, CITRONIC, AMCRON  
AMCRON, YAMAHA, ORANGE,  
D.J. ELECTRONICS.

MAIN AGENTS FOR FENDER, GIBSON,  
CARLSBRO, ROGERS, PEARL, BEVERLEY ETC.,



POWER  
PACKED  
PICK-UPS  
ON

*Kimbara*  
ELECTRICS



For the ambitious player the Kimbara range offers a wide choice of models which have merited rave notices in the professional press. "Firmly established on the British market" (*Beat Instrumental*): "the action was incredible . . . one of the lowest I've ever experienced" (*Sounds* newspaper). In electric solid six-strings you have a choice of eight models . . . all with luxury specifications yet prices are modest, ranging from around £80 to £110. For the all-round session man there's a further wide range of Kimbara acoustic guitars with fan-barred classical models built to concert standards, pin bridge folk models, big toned jumbos, a heavy duty twelve string, and ornate country western instruments.

Please send  
10p stamp  
for guitar  
brochures

Name \_\_\_\_\_  
Address \_\_\_\_\_

**FLETCHER  
COPPOCK  
& NEWMAN LTD**

39/41 SHELTON STREET,  
LONDON, WC2H 9HL



The "Rocker"

The "Rocker" is a practice headphone amplifier for use with bass/six string guitars, electronic organs and footpedal effects; it is the realistic answer to your practice problems.

The "Rocker", powered by two 9 volt batteries and having thermal and output stage protection, will drive stereo/mono headphones greater than 4 ohms, or can be used as a "mini-amp" with your speaker cabinet.

Price inclusive of VAT £15-82. P&P. 40p.

ETIME

16, Foyle Street,

Sunderland, SR1 1LE.

# DANDELION

EVERYTHING IS EVERYTHING AT  
DANDELION

**GIBSON STAR DEALER** — SO COME CHECK THE GRABBER BASS, THE CUSTOM SUNBURST 165 (ONE ONLY), THE SUPER 155 CUSTOM, ALL THE LES PAULS (BLACK, WHITE, SUNBURST) AND THE S.G.s. PLUS GIBSON STRINGS, PIX, PICK-UPS, SPARES, ETC.

**RICKENBACKER FRANCHISED DEALER** — SEE THE UNBELIEVABLE DOUBLE NECK SIX AND TWELVE. THE BYRDS ALL MAPLE STEREO 12, BASSES AND SIXES.

**H/H FRANCHISED DEALER** - ALL THE AMPS PLUS THE SERVICE, BEFORE AND AFTER SALE.

**AMPEG MAIN AGENT. W. YORKS** — SUSS OUT THE HOT VT22 COMBO. THE V4, B4B, B25B, ETC.

**PEAVEY MAIN STOCKIST** — SUPPLIED BY US TO BE-BOP-DE-LUXE, JEANNIE DENVER, SWAN ARCADE, THE WHAVES, SWEET WINE AND OTHER TOP BANDS.

**ARP APPOINTED DEALER** — THE NUMBER ONE SYNTH. THE ODDYSEY AND PRO SOLOIST IN STOCK AND AVAILABLE FOR YOUR TRIAL IN THE STUDIO.

**GAUSS-CETEC LOUDSPEAKERS** — WE HAVE JUST BEEN APPOINTED RETAILERS FOR THESE FINE UNITS. ALL MODELS SUPPLIED, BASS, LEAD OR P.A.

## DRUMS

SLINGERLAND, GRETSCHE, BEVERLEY, ROYAL STAR, ASBA, SONOR, HAYMAN PREMIER, LUDWIG, AVEDIS, PAISTE. NEW AND USED.

DON'T FORGET YOUR SHO-BUD PEDAL STEEL OR TRAYNOR, HI-WATT, MARSHALL, JBL, CARLSBRO OVATION, MINI-KORG, HOHNER GUILD, HARMONY, CSL, ANTORIA, FENDER ETC.

THE HEART OF KIRKLEES IS WHERE IT'S AT!  
RICKY EL DICK SAYS DIXIES NO PRATI!  
MALCOLM EL GREEN SAYS ALAN'S NO FOOL,  
SO GIVE US A CALL AND PLAY WITH OUR INSTRUMENTS!

97 King Street, Huddersfield. Tel: (0484) 26657

# DEALER NEWS

stands, bass pedals and the like are absolutely brilliant quality for the money. Paiste, Zildjian and Syn cymbals and a variety of sticks are also available.

KEYBOARD HARMONY of Red Hill High Street, Surrey, seem to have been visited by all the bands in their area in the last month. Ducks Deluxe were interested in the Traynor amplification, as were Isotope. Checkmates, Limerik and Screamer, all regular customers, were in buying odds and ends and subjecting the equipment to close scrutiny. Another local band, Dirty Works, stopped by to look at P.A. systems.

Keyboard Harmony is popular with professional musicians for several reasons. When it first opened in April 1973, it sold only keyboards. By September of the same year they had expanded their range to cover all kinds of equipment with a particularly large percussion section. The shop is run by Andy Simmons and his partner, Jim MacDonald who pays special attention to the expansive keyboard section dominating the basement. They are assisted by Mike Sachs and Steve Baylis who between them manage to retain a stock of useful information about the organs and wide range of percussion instruments which they stock.

Guitars stocked are Fender, Gibson, Antoria, Arbiter and CSL, the Japanese guitars selling way ahead of any of the others. The amplification they stock

includes Traynor, HH, (both selling well) Carlsbro and Davoli. Their Maxwin drum range is selling fast, despite competition from the other makes they stock, Slingerland, Premier, Ludwig, and Hayman. Synthesizers in stock are Korg, Davoli, and Crumar, while the brass stocks include Boosey and Hawkes and Selmer. From the keyboard range, National and Riha are selling very well.

MACARI's in London's Charing Cross Road is situated at the heart of the traditional centre of the music industry and for that reason many big stars are regular visitors. Recently artists including Jack Bruce, Baker-Gurvitz, Suzi Quatro, Mud, the Pretty Things, the Rubettes and the Sweet to name just a few!

Perhaps the most unusual order from the stars was one for over £100 worth of strings from the Baker-Gurvitz roadies — they obviously believe in travelling prepared. Big feature at this one of Mucari's three shops is the synthesiser showroom. Here several different kinds of string synthesiser are on show including the Insta Strings, The Solina and the Rhapsody.

Guitars stocked include Fender, Gibson with only a very little amount of second-hand material being available. Amp lines include Marshall, Sound City, Carlsbro, Hi-Watt and Fender. Color-sound pedals and effects units are big sellers in the shops.

WHITE SOUND EQUIPMENT in Sunderland are naturally keen to promote White Amplification as their main line. Cirkus have recently been considering taking a 3KW White System and the company are finding problems in keeping up with the demands their customers make on them. There's a lot of work in the area, mainly clubs, and bands are constantly visiting the shop to discuss changing their instruments.

The accent in the shop is mainly on amplification and guitars and lack of space prohibits the stocking of discos, keyboards and drums.

Pilot sent their roadies in to stock up on accessories recently and local band Crypt have just taken delivery of a 1,000 White P.A. System. White have also provided P.A.s for John Martin and Hedgehog Pie tours, and recent customers include Halfbreed and Prelude, both groups buying P.A. systems. They have also provided P.A. cabinets for the Cambridge Folk Festival.

The shop is a Gibson Star Dealer and a Fender Soundhouse and naturally a large range of both Gibson and Fender guitars is carried. A big feature is the second-hand department in the shop and one large item customers are currently interested in is a powerful Kelsey-Morris P.A. system that Becket have traded in. Main amp lines include, White, Carlsbro, Orange, Hi-Watt, Marshall and Ampeg. Obviously Fender amplification is also popular. □

## DOWN UNDER

AMPS, DRUMS  
GUITARS.

Redhill 68821

Speedy  
Mail Order  
Service  
To Your  
Door

MUSIC, REPAIRS  
KEYBOARDS.

**CARLSBRO**

**COLUMBUS**

**Fender**  
soundhouse

Anteria

TRAYNOR

YAMAHA

**Gibson**

STAR

dealer

**Premier**  
1st IN PERCUSSION

ALL THIS  
AND  
MORE

**HH**

**DAVOLI**

All the above gear  
is available on our  
LOW COST HIRE  
nightly-weekly-monthly.

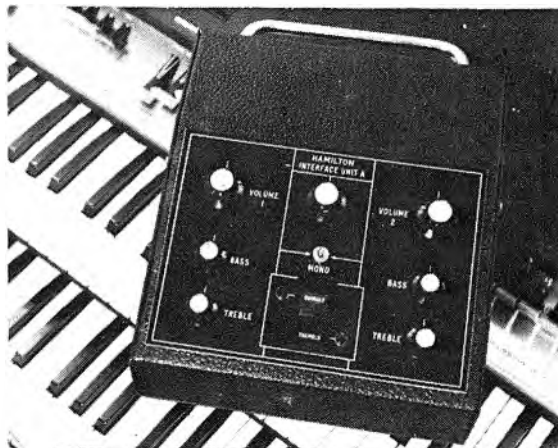
**KEYBOARD**

HARMONY  
LTD.

82 HIGH STREET  
REOHILL, SURREY RH1 5G

## HAMILTONS

THE HAMILTON INTERFACE UNIT A  
ORGAN PRE-AMP FOR TONE CABINETS.



The set up variations made possible by the INTERFACE UNIT are too numerous to illustrate. Lets just say that if you're a keyboard player, and you'd like to use a rotary tone cabinet — or two — or one straight and one rotary — or one rotary and an amp stack — or ... well you see what we mean? Then for total control of your sound, at your fingertips, instantly, without messy fitting kits, and without dismantling it's got to be the INTERFACE.

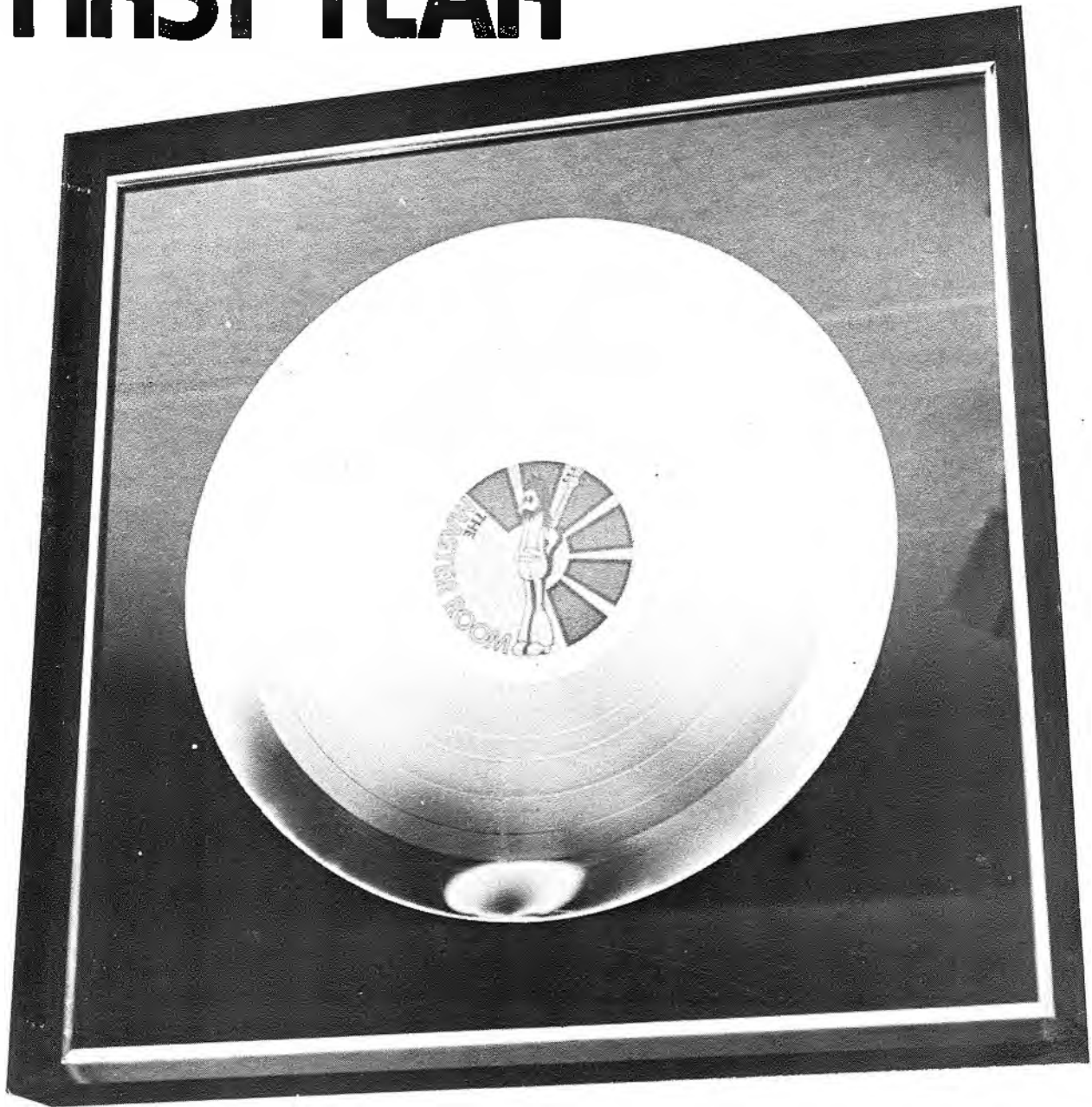
Send for our fully illustrated leaflet or telephone for details.

TRADE ENQUIRIES WELCOME

26, NEWPORT ROAD,  
MIDDLESBROUGH,  
CLEVELAND.

Dial: 0642 - 47314/5/6.

# A FABULOUS FIRST YEAR



*CUSTOM CUTTING TO THE RECORD INDUSTRY*

Enquiries to: George Peckham & Tony Bridge  
The Master Room Co., 59, Riding House Street, London W.1. Tel: 01-637 2223

One of the great unrecognised arts of the music industry is the cut. Producers and a few enlightened artists are prepared to travel half way across the world to cut a master with the right cutting engineer.

Cutting studios swing in and out of fashion like dance rhythms and just a few years ago Apple cutting was *the* place to cut. Today Apple has gone and a new centre in London has sprung up.

The Master Room in London's Riding Horse Street has been building almost a cult-following among more aware producers in the year it's been open and it has the distinct advantage of ex-Apple cutting engineers George Peckham and Tony Bridge doing the business.

The Master Room is a highly individual and specialised operation. It was set up specifically to be the only specialised cutting studio in London by Freddie Peckham, Bryan Hewson, Tony and George. The policy of specialisation has proved highly successful and George and Tony now spend an incredible number of hours per week cutting masters and high quality acetates.

Among the Master Room's recent successes has been the Wings' superb *Venus And Mars*.

"It was quite easy to cut really," recalls George, "But it was quite long on one side, just over 23 minutes, and the other side is around 20. A few years ago people were putting longer time on to disc, but now that we're getting a bit more level on, it has to be a bit shorter. The best playing time is around 20 minutes really."

Just a few years ago, cutting engineers were boasting that they could get 28 minutes on a side with no loss of level, but that was before engineers got cheeky, and began to question the equipment manufacturer's specifications regarding level. "A few engineers refused to accept that and so now and again a cheeky one would put more level on than he should — including me. The result was that cutting engineers found they could get more level without any more distortion than the equipment manufacturers suggested and because of the level, the optimum cutting time was reduced. The subsequent increase in sound quality was well worth the loss in playing time.

But cutting engineers can only be as good as the tapes they are supplied with. Within limits they can improve a poor quality tape, but the limits are quite narrow.

"About 50 per cent of the tapes that arrive are good, the other 50 per cent poor, needing a lot of work. The biggest single problem in cutting is dynamic range. When you limit and equalise you've got to be really careful to watch which frequencies you are adding to because if you add at the wrong frequencies it will go flying way over the top and you'll have to limit all the more and the end result is a rotten sound.

"So many new engineers have appeared on the scene who don't understand the needs of the cutting engineer. In the old days an engineer started as the-brusher-up-come-tea-boy and then he'd learn how to copy tapes doing a transfer, then he'd go to the cutting room and from there he'd go to the studio. And because he had to go through these three or four steps by the time he got to the end he'd understand the whole process."

In addition to working within the limitations of the cutting lathe, the thoughtful engineer also has to work with the producer or artist during the cutting process. "Some clients, whether they are producers or artists, have exceptionally fine ears. Ian Anderson has an excellent pair of ears for

## Master Cuts

continued on page 71

George Peckham



The Master Room, London's specialist  
record cutting studio  
has just completed it's first year in business.

**Like most top studios they use Ampex  
Mastering Tapes -exclusively.**

From everyone at Ampex, congratulations.

**It's not everyday you get to be one.**



MM1100  
multichannel  
recorder/  
reproducer

**AMPEX**

The Better Memory People

AMPEX (Great Britain) LIMITED, Acre Road, Reading, Berkshire. Tel: Reading 85200, Telex: 848345

**AMPEX Worldwide** 

Audio & Videotape Recording Equipment; Instrumentation, Computer Tape Drives; Core Memories; Disk Drives; Magnetic Tape

example. In that situation they hear everything you do. To get the end result you might try to clip some of the frequencies a little bit, but he'd be able to hear what you'd done and you'd have to leave it alone. Half the ability to hear is natural, the other half is attunement which is the result of long hours in the studio. You've got to have it before you can train it."

In an effort to get the maximum level whilst holding the dynamic range within an acceptable level, is it possible to slip limiters in and out during a cut?

"You can, but only within circuit. You can't really put the whole limiter in and out because of the possibility of clicks and bangs. The problem with that is that if you're going to use a limiter it's got to be in circuit all the time so you're using another set of amplifiers or you're adding distortion all the time. You want to try and avoid click and distortion. Records are bad enough as it is. The companies are re-cycling plastic like good-oh so the quality is bad enough as it is."

Engineers traditionally are a little resentful about the interference of artists and producers over what is, after all, mainly a technical operation. About 50 per cent of artists and producers attend the cut and George makes a point of trying to achieve exactly what they want.

"Everybody is urging you to give your best on a cut. What they don't realise is that I'm only going to give my best anyway. Many times I've cut something that I would have preferred to sound better, but I don't think it's been my fault. I really try as hard as possible on every single cut."

As a long established cutting engineer at Apple and at the Master Room, George has cut many, many chart singles and albums. But which one presented him with the greatest challenge before giving him particular satisfaction?

"Abbey Road. That was quite a long album but I managed to get a good level on it. I'm really pleased about that one, but I must admit it wasn't all down to me because the tapes were good anyway. Geoff Emerick was recording and he's a great engineer, he went through all the steps I mentioned before. He's got two Grammy awards for his engineering so he should know what he's doing. That made it so much easier for me to get on to disc as loud as possible."

One problem of course is that many artists don't understand the need for clarity on a cut. "A lot of bands say to me, 'I don't care if it's dirty, just get the level on'. But the thing always comes back to me a month or so later when the pressing jumps so we have to do a re-cut my way. Usually the

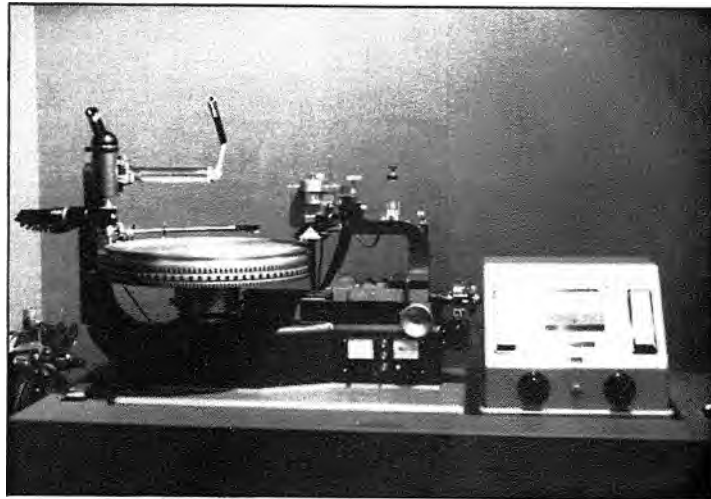
head of the record company is the man who insists on a decent cut."

"One of the things that makes me weep is what happens to some of my cuts when the pressing plant gets hold of it. I've had some really disgusting pressings back and of course we get the blame."

So has the Master Room ever considered setting up a pressing plant?

"It's something I'd like to do. It's very costly, very involved and very time-consuming. It would be beautiful to cut the record and then press it perfectly and make sure the public get exactly what was recorded. Lots of people send us the test pressing and ask us to

O.K. it. If we don't, it has to be re-cut and they have to pay for it. There's several ways they can mess a cut-up. When they make up the metal electrolysis stage, when metal is transferred across onto the lacquer itself, they transfer at the wrong heat, and the bass seems very woolly. Then on the production stage when they clean the disc up, you lose all the top if they over polish." □



# Meanwhile back in Welsh Wales

YOU CAN FIND

ONE OF THE BEST DRUM CENTRES IN BRITAIN



Usually about 40 Kits in stock including:

Rogers	Pink Champagne/Black
Gretsch	Silver/Blue
Slingerland	Black Glitter
Hayman	BigSound — Silver
Pearl	Black Glitter Twin Bass
Sonor	Red Acrylic/Silver/Blue
Star	Blue/Black
Shaftesbury	24" Marine Buddy Rich
Shaftesbury	Black
Beverley	24" Panorama
	Blue/Galaxy Red
Beverley	Twin Bass Marine Pearl
Hoshino	Copper
Ludwig	Super Classic — Oyster

Drum Accessories Stocked —

Cases, Fittings, Pedals, Stands, Snare, Bongos, Congas, Heads, Spurs, Wing Nuts, Keys, Ludwig Cowbells — Why Not Buy One For Your Mother-In-Law? Also Sticks Grown on our own Drumstick Farms.

Always well over 100 Cymbals in stock — Paiste, Avedis & K-Zildjians, Zyns, Kruz, Ajax and various assorted Dustbin Lids.

Part Exchange Welcome — Credit 10% Deposit. Barclaycard, Access & Even Good Old Fashioned Cash!

**PLUS**

Guitars Galore:—  
Fenders, Rickies, Gibbies, Guilds, Framuseseses, Ovations and Rots of Ruvry Japanese Copies.

**PLUS**

Brass & Woodwind by:—  
Conn, Yamaha, Olds, Besson, B & H, Seimer, Huttli, Artley, Corton, Bach (What Else in Wales?)

**PLUS**

Amplification by:—  
Fender, Carlsbro, Yamaha, Simms-Watts  
BOSE PROFESSIONAL P.A. MAIN AGENTS.

**john ham**

SOUND STUDIO  
75-76 Mansel St., Swansea,  
SA1 5TW. Tel. Swansea 50968.



# // The band get off on the 'orrible, dirty sound.//

Road Crew, Chapman-Whitney



These guys know a thing or three about equipment. They know about the Marshall Sound: "We picked them because the band dig the colouration, you know, that polite word for 'distortion'.

"Bob Tench and Charlie Whitney like 'em because they give lots of sustain without making you work too hard. You don't need things like fuzz boxes, you just plug straight in.

"They're easy to fix, circuits are laid out very easily, and if they ever *do* go wrong, it's in a very visual way. We've never had any trouble with them."

**Professional men with a professional band.** Take the professional word for it and check out Marshall, the soundest sound around.

**Rose-Morris**

music is our business

Dept. W, Rose-Morris & Co. Ltd.,  
32-34 Gordon House Road,  
London, NW5 1NE



# Cabinets

## Boosey & Hawkes

Ampeg sound equipment includes a number of set-ups, and the cabinets involved provide a wide spectrum of choice for the musician. The SVT set-up boasts two enclosures housing eight 10" speakers, sealed in four compartments. Each enclosure is capable of handling 240 watts RMS each. The V-4B encloses two 15" Altec Lansing 421A speakers, with a double folded horn handling 240 watts. The cabinet in the B-25B set-up houses two 15" speakers, a dual driver bass reflex vented enclosure, a handling capacity of 120 watts per enclosure, and an impedance selector switch of either 4 or 16 ohms. The B-15S Cabinet houses a single 15" speaker with an 8 ohm impedance and a 60 watt handling capacity, and the B-15N offers roughly the same specifications.

## Bose

The American Bose range of loudspeakers includes the Bose 800, which they claim is the first truly portable music reinforcement system of its kind. Utilising eight identical 4½" Bose drivers with close acoustic couplings, the full range driver design eliminates crossover and the problem of crossover colouration.

With a low peak to average frequency response ratio at the microphone, the Bose 800 promises unusually high gain before feedback. The cabinet boasts a maximum recommended amplifier power rating of 270 watts RMS.

## Carlsbro

With over 30 speaker cabinets, Carlsbro have a bin for just about every occasion. The 100 watt Mini Bin is among the favourites.

A folded horn bin measuring a compact 35" x 20" x 20", the Mini Bin is powered by an Eminence 15" speaker and two Celestion MF 1000 horns and is ideal for P.A. and disco applications.

The Carlsbro 2x12" columns are available in six models, and the latest additions, the 1x12" one horn, 100 watt and 2x12" one horn, 200 watt pairs can suitably replace the now obsolete and bulky 4x12" columns. The new models are fitted with Carlsbro's 50 watt Powertone speakers.

## CBS/Arbiter

CBS/Arbiter offer a number of speaker cabinets, matched to their Fender amplifiers. The Dual Showman enclosure houses two 15" speakers, with a choice of either Fender professional or JBL speakers, a speaker input jack and built-in casters, and measures 45" x 30" x 11½".

The Fender Bandmaster and Bandmaster Reverbs are paired with two specially designed 12" speakers (again, either JBL or Fender speakers), also with speaker input jacks and built-in casters, measuring 39½" x 29" x 11½".

The Bassman 100 enclosure, which measures 40½" x 30½" x 17", houses four specially designed heavy duty 12" bass speakers, while the Bassman 50 enclosure measures 30" x 28" x 12" and houses two 15" bass speakers (either Fender or JBL).

## Clartone

The Maximin range of cabinets have been designed with the intention of offering musicians a viable alternative to the bulky traditional 4 x 12 cabinets.

The Minimax pick-a-back cabinets will be available in a 50 watt version, with two 10" speakers, a 100 watt version with two 12" speakers, and a 100 watt version with four 10" speakers.

The Maximin 152 is fitted with a Celestion 15" speaker and two horns and handles 100 watts. This will be made to order, with a variety of speakers such as Gauss and Eminence. The cabinet is suitable for lead, bass and P.A.

## Chingford Organs

Chingford Organs have one fine speaker cabinet suitable for use with organs, pianos or even guitars. The German-made Solton has an output of 130/160 watts, and has a rotary speaker system. The unit is portable.

## J.T. Coppock

The Leeds based firm of J.T. Coppock offer two very interesting Elgen speaker cabinets. The "Thing" Bin is a flared bin for mid range and bass, and is ideal for use with P.A. It houses a single 15" 150 watt Fane Crescendo or Cetec loudspeaker, depending on the buyer's specifications.

Elgen also offer a set of 2 x 12 columns, designed for use with GP 100 amplifiers. Each column houses two 12" speakers with a total handling capacity of 160 watts per pair.

## Court Acoustics

Court Acoustics is the trade name for speaker systems designed and manufactured by Stephen Court of Dennington Acoustics (Audio Consultants). Complete JBL systems can be supplied including components and spares, and in addition, custom built systems can be supplied under the name of Court Acoustics. These sys-

tems are complete with carrying handles, aluminium profiles, and include a new 18" version of the JBL 15" horn (Gauss 18" can be supplied at slightly reduced cost).

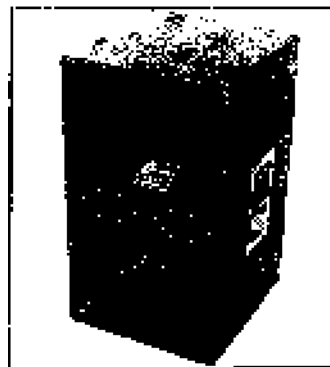
## Custom Sound

Custom Sound do a variety of loudspeaker enclosures, ranging in price from £39.00 to £564.00. At the economical end of the range is the CS7212D, a 2x12" 100 watt cabinet for use with P.A. The 7212G boasts similar specifications for use with guitar, while the 7212H offers the same specifications with a horn cabinet, and is also for P.A. use.

The 7115D houses a single 15" speaker, and is a reflex bin for use with bass guitar, handling 100 watts. The 7112/2H boasts a single 12" speaker plus two horns, and is a reflex bin suitable for either P.A. or disco use. The 7412G is a 4x12" guitar cabinet, handling 200 watts.

Of particular interest is the Custom Sound 7000, comprising two 7115D bins with Altec 15" drivers, two 7115/2H cabinets with 12" drivers and two H.F. horns, and links up with a Custom Sound 700 P.A. amp and power amplifier.

*Carlsbro's Mini-Bin*



continued on page 75

# Lighting!

Custom built or off the shelf....

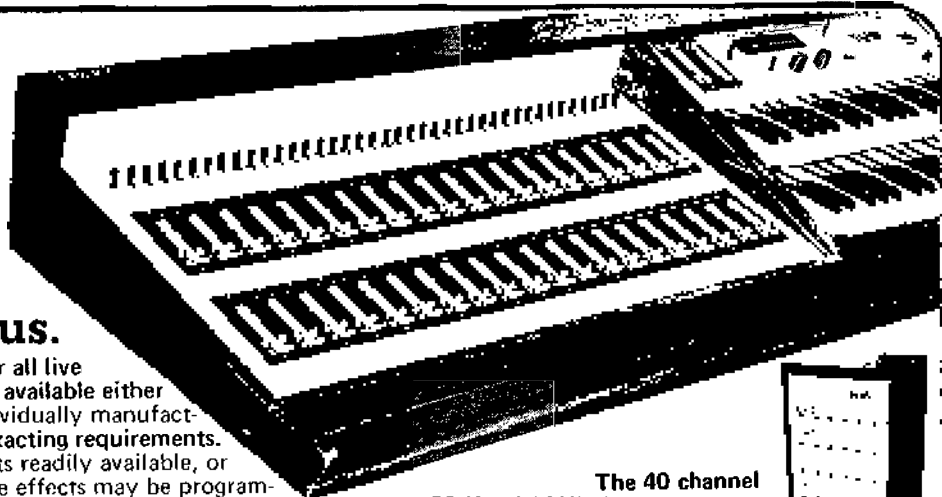
...it's all the same to us.

The ideal lighting system for all live venues, many variations available either "off the peg", or individually manufactured to your own exacting requirements. Many exciting effects readily available, or other more elaborate effects may be programmed on interchangeable cassettes. Let us quote for your individual requirements.

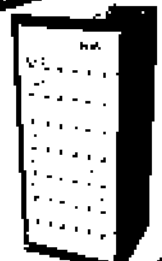
AS  
USED BY  
NEKTAR

**TVAS**

174 Crossbank Street, OLDHAM, Lancashire, England, Tel: 061-620-7114



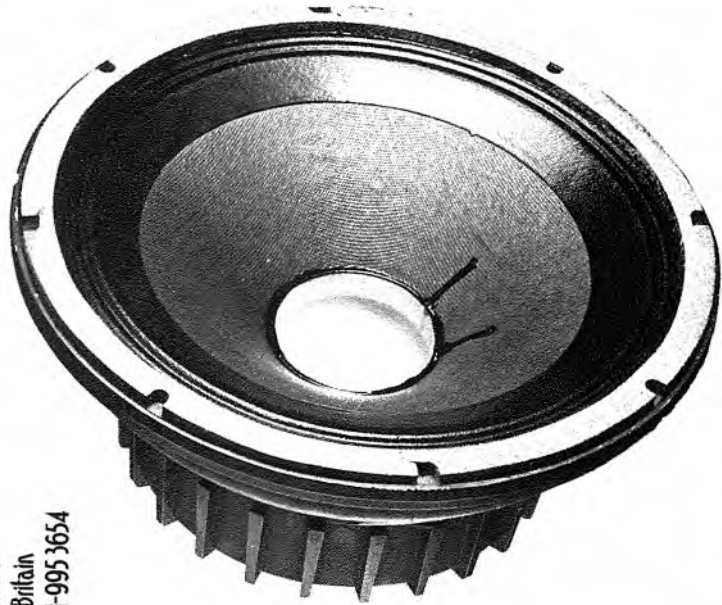
The 40 channel  
80 Kw. LIGHT SYNTHESIZER  
and power pack for mobile use.



# ATC

Acoustic Transducer Co. Ltd.  
(Acoustic engineers)

Pier House Laundry  
Strand on the Green  
Chiswick  
London W4  
Great Britain  
Tel: 01-995 3654



Professional power loudspeakers  
made in Britain.

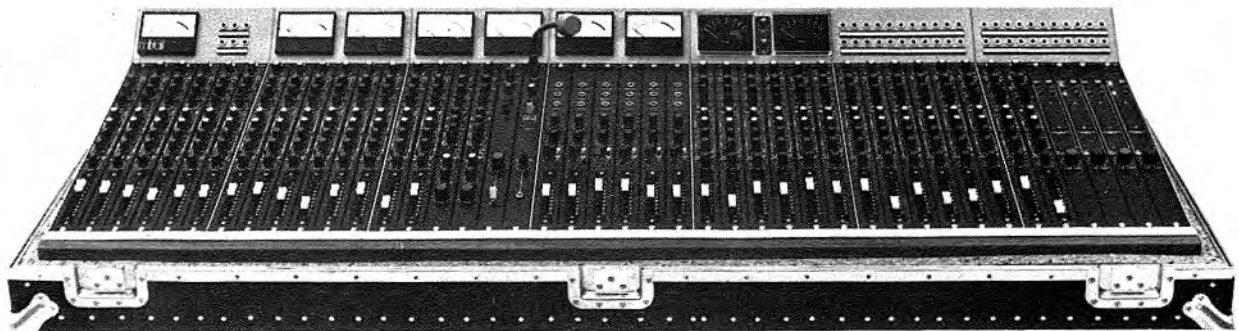


A professional approach to the communication  
between musician and audience.

## MARTIN AUDIO LTD.

54-56 Stanhope Street, Euston, London NW1 3EX 01-388-7162.

Portable console as supplied to Alvin Lee.



### MIDAS AMPLIFICATION

54-56 Stanhope Street, Euston, London NW1 3EX Telephone 01-387-7679

# SURVEY Cabinets

## Davoli

Davoli do a broad range of speaker cabinets, with the emphasis being largely on P.A. In the small end of the range, Davoli do the D K 45, a 45 watt P.A. speaker cabinet handling 45 watts with a single 12" full range speaker. The D K 75 is a 75 watt speaker cabinet boasting two 12" full range speakers. The D K 90 handles 90 watts through two 12" with 2 tweeters. The D K 120 boasts a single 15" speaker with two horn tweeters and handles 120, while the D K 180 handles 180 watts through four 12" speakers, and boasts four tweeters. Top of the P.A. range is the D K 200, which handles 200 watts through two 15" woofers, two mid-range horns and two horn tweeters.



## Feldon Audio

Feldon market the JBL range of professional speaker systems. The 4311 Control Monitor 3-way is useful in studio control rooms, utilising three cone drivers to achieve a bandwidth of 45 to 15,000 Hz. The 4315 Compact Studio Monitor houses a 12" low frequency, 8" mid-range and 5" high frequency loudspeakers with an ultra-high frequency transducer.

The 4330 and 4331 Studio monitors utilise a recently developed 15" low frequency speaker with the existing wide range high frequency compression driver and horn/lens assembly. The 4332 and 4333 Studio monitors are an expansion of the aforementioned cabinets, and also boast an additional ultra-high frequency transducer that extends the bandwidth of the system to 20,000 Hz.

The 4340 and 4341 Studio monitors consist of 15" low frequency and 10" midrange loudspeakers, a high frequency compression driver with an exponential horn and acoustic lens, and an ultra high frequency transducer.

## FAL

FAL are in the process of completely revamping their range of

loudspeaker cabinets, but two of their more familiar models will remain on the market. The FAL 50 is an inexpensive, general purpose enclosure incorporating a 12" 14,000 gauss unit handling 50 watts RMS. The FAL 100 MkII features two 12" speakers with a 100 watt output.

## Jennings

Jennings make a number of speaker cabinets, and the one which they recommend for use with their own amplifiers is the D4. Handling 120 watts through four 12" 30 watt speakers, the D4 comes in four or eight ohm impedances. The B2 speaker cabinet is a 100 watt cabinet for bass or organ use, and features two 15" speakers, while the B1 is fitted with a single 18" speaker, and is more suitable for a bass player who wants to couple power with portability. The smaller (50 watt) B3 is fitted with one 15" speaker suitable for bass or organ.

## Kemble

Kemble market the Yamaha range of equipment, and they provide a number of speakers for use with their systems. The RA 50 series is ideal for use with every organ

setting and studio or stage combo performance. The RA 50 houses a single Yamaha Natural Sound speaker, handling 60 watts. The RA-100 houses two main and two tremolo speakers, while the RA-200 is a giant combination of four main and three rotary tremolo speakers, handling 200 watts.

The TS series is suitable for use with guitar amps, and includes the TS 100, and the 110 and 200 cabinets, which can be used in conjunction with the YHS 100 horn speaker unit, providing a boost to the mid-range. The BS 100 is for use with bass amplifiers.

For use with P.A. systems, Yamaha offer a variety of combinations, built upon the PS-75 speaker column, handling 120 watts, and the PS-100 column, handling 100 watts.

## Leslie

Leslie has been the yardstick by which rotary organ speakers have been judged for many years. When buying a Hammond organ, it is almost obligatory that the organist adds a Leslie tone cabinet to produce the true rotating sound that results from the unique combination of Hammond and Leslie.

continued on page 77

**A Further Development Of  
The Renowned S.A.I Mini Bin  
Fitted With Two Horns And A  
100w MacLab 15" Speaker  
Size 28"x20"x20"**

S.A.I., REGENT ST. WAREHOUSE, REGENT ST.,  
COPPULL, CHORLEY. TEL. COPPULL (0257) 791645

# AKKERMAN'S AXE

To destroy on stage, even for a Superstar, you need the Akkerman, the ultimate electric guitar. Offering a perfect combination of the qualities found in both acoustic and electric guitars, Akkerman's famous Ramus finish and a lifetime warranty. Even in the hands of a Superstar it should last forever.



**Ramus**

30 Castlenau Mansions  
London SW13 9QX  
Tel 01-741 2932

# SURVEY Cabinets

In recent years, however, Leslie have taken their specialised cabinet knowledge into fresh fields and launched a range of speakers not specifically designed for electronic organs.

The Model 18 is a combination speaker that houses a single 12" extended range driver, phase-shifted by an internal foam rotor. The cabinet is without internal amplification and it weighs around 70 lbs, and measures 29" x 21 3/8" x 15".

The rotary cabinets designed for organs have changed considerably since the huge wooden tone cabinets of a decade ago. Today they are far more portable without the sacrifice of either tone or volume.

For the new range of Hammond portable organs, Leslie suggest the 825, or 760 cabinets. The 825 contains a 70 watt amp unit, and delivers its power through a 12" driver with sound activated by a foam rotor. The 760 offers 90 watts of sound from two channels of amplification and it's delivered through a 15" bass speaker plus a treble driver. Two rotors (horn and wood bass units) are also part of the specifications.

Top of the tone cabinet range is the 910. This is a large double cabinet containing one 15" bass driver, two 6" x 9" mid-range units and a treble driver. 100 watts RMS are available from three separate channels and the weight of the unit is 60 lbs for the upper module and 106 lbs for the lower cabinet. Two rotors are responsible for sound movement.

## Lockwood

The subject of cabinets and speaker enclosures cannot really be disposed of without reference to Lockwood, one of Britain's oldest established loudspeaker manufacturers.

Lockwood speakers are designed and produced for a wide variety of applications, but it can most commonly be found inside recording studios of the highest specification which monitor their sound via Lockwood enclosures which house Tannoy Red or Gold drivers.

Today the Lockwood range is far more comprehensive and commonly available are the Lockwood Major and the Universal Major. The Universal can be supplied with an optional mounting saddle which will solve many installation problems.

## Macinnes

The Auralinear ES-212 Loudspeaker from Amcron was developed to match the dynamic range and linear reproduction of the other Amcron components. Midrange and highs are reproduced with virtually no crossovers, and wide range electrostatic radiators give flat response, low distortion and placed so as to offer a wide dispersion pattern. Bass response is delivered by two 10" long throw woofers in an acoustic suspension environment. The unit handles 75 watts.

## Martin

Martin produces high power professional loudspeaker systems for all applications. These ranges from personal stage monitoring and instrument stacks to comprehensive four way P.A. systems, incorporating Midas cross-over/limiters. The prime objective in designing these systems is to minimize harmonic and intermodulation distortion at high sound pressure levels. A development programme supplemented by anechoic chamber measurements has resulted in a sophisticated four way system with horn loaded 500 watt 2 X 15" bins operating

below 500 Hz, compression drivers and ring radiators covering the remainder of the spectrum, with narrow band operation of the mid range drivers.

## Orange

Orange Musical Industries produce a broad range of speaker cabinets. The 4x12 Mini Cabinet is available in either 120 or 200 watt versions. The Bouncer Bass Cabinet is a folded horn enclosure with a single 15" speaker, and is ideal for use with bass or organ. The 2x12 Projector column is a monitor projector column with two 12" heavy duty speakers, while the 2x15" Reflector Cabinet was specifically designed for use with bass guitars.

Leslie 825



continued on page 79

# Is your live sound dead?



It's dead easy to rattle the wax round people's ears. You get the biggest, most monstrous speakers you can lay hands on, wind 'em up and POW.

A sound your mother wouldn't recognise comes thickly through the ether.

What's a lot less easy is to sound like you really sound 43 rows back.

And whether you're trying to build up a following or pushing to sell-out your 20th album this is the sort of quality you've got to fret over. In this situation American



bands are years ahead of British bands.

Because Bose pro speakers and amps have been available over there since '71.

Bose speakers are small enough and light enough for you to shift a couple on a Honda 250.

Yet the quality and volume is good enough for a big band operator like James Last to demand them for open air concerts.

They cost a few bob more than the average speaker.

But they're well worth the difference.

Bose 800 speakers use multiple identical drivers in an air-sealed enclosure. This provides a clear natural sound with smoother response than ported bass cabinets (which are often boomy) and horn-loaded drivers (which are often peakey).

And they provide a full musical frequency range performance, with excellent transient response. Small cones, powered by massive magnetic structures, provide rapid response to transient signals. (Get your drummer to demonstrate this).

From the point of view of portability, they're far out. A mere 43 lbs each, including the cover. And they're very rugged, being built into a case of 7-ply birch.

When needed, the 800 can, of course, be stacked to produce a column effect.

For use with the 800 we recommend the Bose 1800 professional solid state dual channel power amp.

Ring or write to us now, and we'll let you have all the other details you need to give your sound the kiss of life.

**BOSE**<sup>®</sup>  
Milton Regis,  
Sittingbourne, Kent.  
Tel: 0795 76341.



£187.50 + VAT

6 Channel Mixer Amp comprising six independent channels, each with Treble, Middle, Bass and Echo controls, Slider Volume Control, Monitor volume – Treble and Bass, Echo Return powered by a 150 Watt amplifier with heat sinks for cool running. [ Hi. & Low input sensitivity switching  
Preamplifier Distortion typically 0.01% at 1KHz  
Power amp distortion typically 0.05% at 1KHz  
Hum & Noise – 116dB

**Mix with a Slave Driver**

**MM**

Currently provisions are being made to manufacture Graphic Equalisers, Guitar Amps and Combos. Details will be released in the near future. For further details contact TONY GIPP (0223) 66559.



£87.50 + VAT

150 Watt Power Slave  
150 watts r.m.s. into 4 ohms  
T.H.D. typically 0.05% at 1KHz  
25Hz – 20KHz ± 1dB.

**WAVE ELECTRONICS**

French's Mill, French's Rd., Cambridge

# NB amplification

COME AND VISIT OUR RETAIL SHOP WHERE YOU WILL FIND AN AMAZING RANGE OF DRUMS, GUITARS AND ALL THE USUAL ACCESSORIES.

**FENDER, GIBSON**  
**HAYMAN, ROGERS, LUDWIG SONOR, GRETSCH**  
**SHURE P.A. SYSTEMS**

WE ARE THE MANUFACTURERS OF THE **NOLAN** CUSTOM GROUP EQUIPMENT  
(MANUFACTURER, RETAILER & WHOLESALE)

**N.B. AMPLIFICATION.**

17, Perryvale, Forest Hill (at the back of Forest Hill railway station) Telephone :699 5019.

**ZB**

**GUITARS (U.K.)**

EUROPE'S PEDAL STEEL GUITAR SPECIALISTS

THE NEW IMPROVED ZB STUDENT S10 GUITAR

2, Upper Fant Road,  
Maidstone, Kent.  
Tel: Maidstone 673355



- \* 10 Strings
- \* 3 Floor Pedals
- \* 1 Knee Lever
- \* Facilities for adding extra levers and pedals
- \* Fully rod operated
- \* Adjustable Legs
- \* Powerful Pickups
- \* Roller Bridge
- \* Universal Changer for Double Sharping & Flatting
- \* Stainless Steel Changer Head
- \* One piece Aluminium Frame
- \* Hard Shell, Plush Lined Case
- \* Simple Allen Screw Adjustment for Pedal Tuning
- \* **ASTONISHING PRICE OF ONLY:**

£350.99 Inc, VAT.

# Cabinets

The 4x12 Column Cabinet is a new size cabinet from Orange. Handling 100 watts through its four 12" speakers, it is designed for use with the Orange Super Road Worker P.A. set-up.

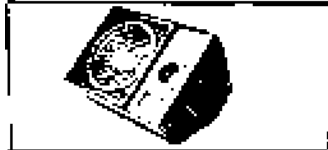
## Rose-Morris

The Marshall range of cabinets are an intentionally thorough attempt to satisfy the needs of every musician. The 100 watt Lead-Organ stack is composed of the 1960 and 1960B (the B is used to denote the bottom half of a stack, as these units have recesses for the castors of the top half of the stack. All the cabinets described as stacks can be used separately). Each cabinet contains four 12" heavy duty speakers.

The 100 watt Bass stack comprises the 1935 and 1935B cabinets, which house four 12" speakers designed to handle low bass frequencies. Marshall have complimented these two stacks with the 1982 and 1982B, which offer four 12" speakers designed to offer high power.

The 2064 and 2064B Lead-Organ cabinets each contain one 12" Powercel speaker handling 100 watts, while the 2065 and 2065B each contain a single 15" Powercel speaker which handles 125 watts.

Marshall's stage monitor



The 1990 Lead-Organ cabinet contains eight 10" speakers which handle 100 watts. The 2045 Lead-Bass-Organ cabinet houses a pair of 12" heavy duty speakers handling 60 watts. The 2052 Lead-Organ Powercel cabinet contains a single 15" Powercel speaker which handles 125 watts, with a rear loaded horn enclosure designed to add bottom end boost.

The Marshall P.A. set-ups boast a variety of speaker columns. The 50 watt system includes a pair of 2047 columns which are front loaded horn units, each of which contains one 10" and one 12" speaker. The 100 watt system contains a pair of 2043 columns, also with front loaded horn units, each containing two 10" and two 12" speakers.

Last but certainly not least is the newest of the Marshall cabinets, the 2097. A compact cabinet housing eight 8" Rola Celestion 8" P.A. speakers, the 2097 boasts a double angled front panel with bi-directional output distribution.

## S.A.I.

The S.A.I. philosophy of cabinet building is to design cabinets to meet a variety of needs. The E.V. Eliminator bin houses a 15" Maclab speaker and Electrovoice horn and driver, and measures 37" x 21" x 23". S.A.I.'s proven bass bin encloses a single 15" folded horn and two mid range horns, coupled to a 55Hz folded exponential horn.

The sectorial budget horn houses one horn rated at 50 or 100 watts with crossover, and the Stage Monitor Cabinet is slope fitted with one 12" speaker, two jack sockets, and is rated at 25-50 watts. The S.A.I. 15" Horn Cabinet houses a single 15"

## R.S.D.

R.S.D.'s new range of P.A. systems includes a stack measuring 7' x 3' x 3', and handling 1,400 watts. It includes two 4.5 exponential horn units with four 15" bass drivers handling 800 watts, two mid bass/mid enclosures with two 15" bass/mid units handling 400 watts, and two mid/HF enclosures, with a three way horn system comprising one mid range at 200 watts, two low HF at 100 watts each and four high HF units at 100 watts each, speaker mounted in a front

loaded cabinet, with a choice of JBL, E.V. or Gauss speakers. When coupled with mid range horns and drivers, they are ideal for use with P.A.

A new range of guitar and P.A.-Disco are now being produced by S.A.I. The Super Lead Cabinet uses two 50 watt 12" units in a ported design, measuring 27" x 20" x 13", and ported P.A. versions are available with or without mid range horns.

## Selmer

The five Selmer cabinets that come within the boundaries of our survey cover just about every possible situation a gigging musician could come across. Lead 100 speaker boasts four 12" speakers that handle 100 watts between them, and recent improvements in the venting have improved the total sound. The Bass 100 features a single heavy duty 18" speaker and a specially ported cabinet which incorporates fibre glass acoustic lining. The PA 60H column speaker was designed to improve the top and middle sounds, to a quality equal to those normally found on prohibitively expensive P.A. systems. It has three 12" heavy duty speakers and a special horn coupled via an electronic filter.

continued on page 80

MONITORING LOUDSPEAKERS

DELIVERED BY W.K.C. LTD

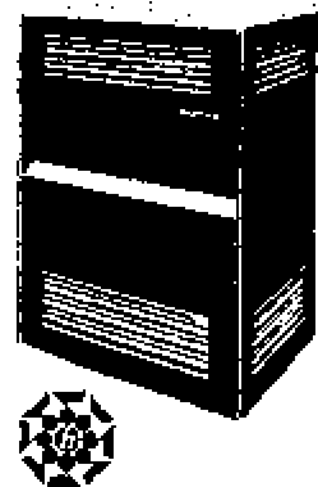
SOUND TO REMEMBER

10 WILSONS ROAD, HARRLOW, MIDDX HA1 3AW  
 01-422 3761  
 01-422 0768

# Sharma, the professional sound

The Sharma range of professional organ speakers. Tough, yet stylish. Designed for hard work, with all the features that real professionals demand. In a range of four sizes, from the compact 500 professional through the 650 and 2000 to the 5000 professional to suit every venue.

Send for the Sharma catalogue today.



To Keith Hitchcock & Company, 1379 Lincoln Road, Peterborough.

Please send me the Sharma Catalogue and address of my local dealer.

Name .....  
 Address .....

I.M. 7/75

## SURVEY: Cabinets

The TV-35 PA is a single column speaker cabinet with three heavy duty 10" speakers and one 13" x 8" elliptical speaker handling 35 watts per column.

### Sharma

Sharma produce a broad range of speaker cabinets designed for professional use. The Sharma 5000 houses two bass speakers and two treble horn speakers, with concealed castors and handles. The Sharma 650 Professional is a small, light cabinet while the Carousel 900 Professional, has an output of 75 watts which is safely handled for long periods by a 100 watt Audiomax bass speaker and a 50 watt high power treble unit.

The 2000 incorporates tomorrow's sound with chorate and fast tremulant plus extra output and brilliance, while the Sharma 2300 De Luxe is identical in size to the 2000, but is fitted with an additional HF horn unit and a separate bass speaker with their own amplifier.

### Simms-Watts

The newest addition to the Simms-Watts stable of speaker cabinets is the H100 Universal Horn Cabinet. Suitable for P.A., guitar or disco, the H100 houses four high-frequency horns and a 15" RCF speaker with a 4" voice coil. The 2 x 12" horn instrument cabinet houses two 12" power speakers and a HF exponential horn, and is suitable for use with guitar, organ or disco, handling 50 watts. The 1 x 15" horn instrument cabinet is an alternative to the above-mentioned 2 x 12", offering a single heavy duty speaker and an HF exponential horn unit handling 50 watts. The 1 x 15" bass speaker cabinet houses a single 15" bass speaker handling 50 watts.

For use with P.A., Simms-Watts do a folded horn P.A. bin, housing a 15" power speaker and two HF exponential Horn units, 2 x 12" twin horned P.A. columns and a 1 x 12" horn P.A. column. The 50 watt add-on horns are designed to provide additional high frequency lift and penetration.

### Soundout

There are seven cabinets from Soundout, each the answer to a different question. The HE1C handles 50 watts, the HE2C handles 100 watts, as does the larger DL6, which is ported.

The DL3 is a 100 watt exponential horn cabinet, which handles 100 watts, while its larger "twin", the DL5, handles 200 watts with a weight increase of only three kilograms. All of the above models, with the exception of the DL3 and DL5 (which are exclusively 8 ohm) are available in either eight or 15 ohm versions.

### Sunn

Ben Page & Son market the Sunn range of speaker cabinets. The 215S is a bass reflex rear loading horn, housing two 15" Sunn speakers handling 160 watts. The 415M is a V-Type bass reflex front loading horn, housing four 15" Magna speakers which handle 220 watts, and the 118MH is a front loading folded horn enclosing one 18" Magna 184 Speaker handling 300 watts RMS.

The 118M, a rear loading bass reflex horn, houses one 18" Magna speaker and handles 330 watts, while the 215SH front loading folded horn houses two 15" speakers. Completing the Sunn selection of bass enclosures, the 115S is a bass reflex rear-loading horn housing a single 15" speaker.

The 410 is an open back lead enclosure, housing four 10" speakers handling 160 watts. The 412 is an infinite baffle, housing four 12" speakers and handles 240 watts, while the indented front loading horn 312S houses three 12" speakers handling 180 watts.

### Theatre Projects

Aitec speaker cabinets and horns include a wide range of bins and horns suitable for every application. The 1204B speaker system is a portable set-up, including a low-frequency loudspeaker consisting of a 15" woofer, a high-frequency sectoral horn, a high-frequency driver a dividing network consisting of a two-section crossover with HF attenuation control and



# picato

## STRINGS SOUND PERFECT

picato electromatic wire wound


picato \*CUSTOMATIC\* gauged strings

picato bass guitar strings

picato gold range for acoustic and classical

Ask your dealer for Picato by name

GENERAL MUSIC STRINGS Treforest Glamorgan



# RSD Systems Limited

185-188 Kensington Church Street London W8

01-229 4675

01-229-9951

OUR HIRE CO. CAN SUPPLY YOU WITH  
P.A. RIGS FROM 1000-10,000 WATTS  
HANDLING, AT VERY COMPETITIVE RATES.

JUST A PHONE CALL WILL ENSURE YOU  
A RIG SUPPLIED COMPLETE WITH  
MIKES, MIXERS, ROAD CREW AND TRANSPORT  
TO ANYWHERE IN THE WORLD.

ASK FOR PETE COGGINS.

\* GUITARS \* AMPLIFIERS  
\* SPEAKER CABINETS \* BASS BINS  
\* P.A. BINS \* HORNS \* MIXERS  
\* ACCESSORIES

ALL AT HUGE DISCOUNT PRICES  
FROM OUR MUSIC SHOP.

\* STOCKISTS OF:- H/H, PEAVEY, ACOUSTIC,  
FENDER, GIBSON, ETC.

COME AND DO A DEAL WITH BOB DOYLE.





800 Hz crossover with a 12dB octave slope.

The 815A low frequency horn handles frequencies from 100 Hz to 100 Hz, while the 816A is a combination front loaded horn and bass reflex enclosure.

The 9849A compact studio monitor is designed for situations requiring extended frequency response and low distortion. It includes a compression driver mounted on a sectoral high-frequency horn, a 12" low frequency loudspeaker and a 150 Hz dividing network.

The 1208B is of matched components; a low frequency musical instrument loudspeaker with a 15" woofer, a High-Frequency Sectoral Horn, a high-frequency driver a precision two-section passive dividing network and a low-frequency horn.

### Top Gear

Top Gear market both Peavey and Hi Watt gear in this country, and thus offer a broad selection of speaker enclosures. The Peavey range includes the 115, housing a 15" driver in a direct radiating, ported, horn loaded enclosure. The 212 comprises two 12" drivers in an infinite baffle enclosure, while the 215 includes two 15" heavy duty drivers in a direct radiating, ported horn loaded enclosure. The 610 houses six 10" speakers, while the 810

includes eight 10" speakers. The 412 consists of four 12" drivers.

The Hi Watt range leads off with the 75 watt cabinet, sporting four 12" speakers handling 75 watts. The flexible lead 100, bass 75 watt cabinet sports the same allotment of speakers, as does the lead 150/bass 100 watt cabinet.

### Vitavox

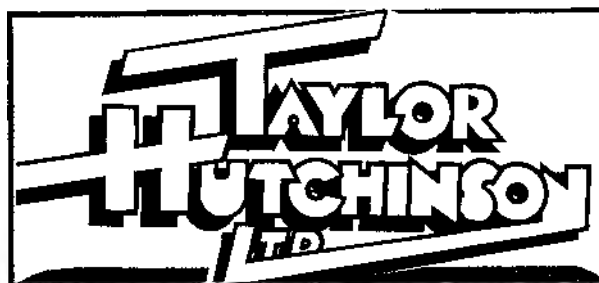
Vitavox have recently entered the group amplification field with their Thunderbolt bin which is currently under field trials sponsored by *International Musician* and Vitavox. Black foot Sue have the bin in with their road equipment and are subjecting it to rigorous testing.

The Thunderbolt was developed especially to meet the need of high quality P.A. installation and it is designed to be used in conjunction with a standard HF horn.

Vitavox have been making loudspeakers and enclosures since long before the Second World War so it was a natural step for the company to move into group speakers.

The result of the trials will be published soon in *International Musician* and the Thunderbolt should be generally available towards the autumn.

*continued on page 83*

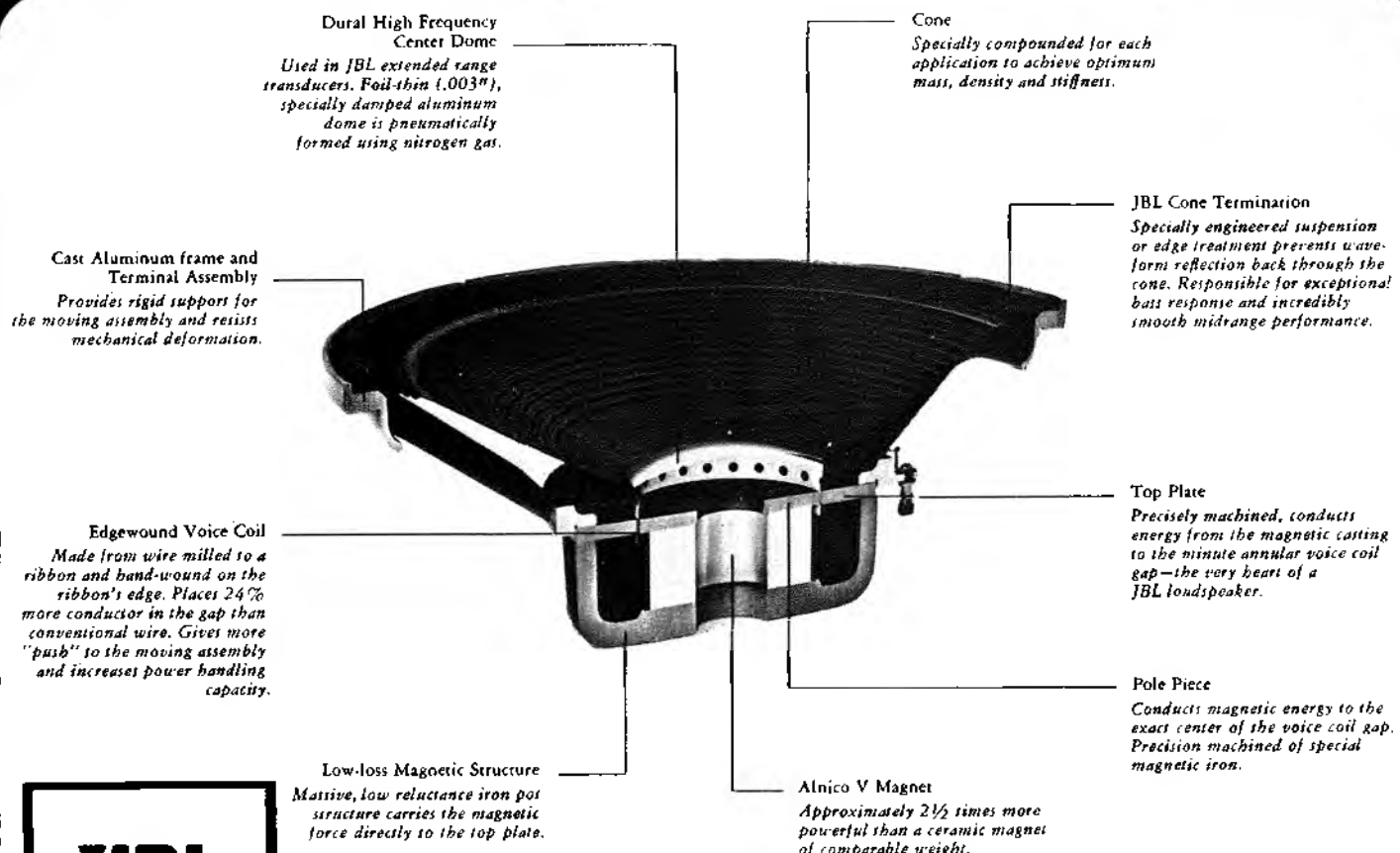


Are you building a recording studio, improving an existing one, maintaining a studio and its equipment, contemplating setting the lot on fire, using studio effects for live work, trying to fathom out the office hi-fi, tape copying and disc cutting, or recording on the kitchen table?

If so, and you're not quite sure what is happening, our service department offers a 24 hour to 5 day maximum turnover.

Advice Collection and Delivery. Hire Facilities. 2nd hand equipment. Full range of new equipment. 2-16 Track always available.

105 HIGH STREET, ETON, BUCKS. SL4 6AF.  
Telephone Windsor 51403



...the musician's Loudspeaker

**RECOGNISED AS THE VERY BEST**

**Feldon Audio**  
126 Great Portland Street  
London W1N 5PH  
Tel: 01-580 4314



*Billy Preston is only  
one of many Artistes playing*

# CRUMAR

## CRUMAR COMPACT ELECTRONIC PIANO

- 5 octave polyphonic electronic keyboard.
- Slides for PIANO, CLAVICHORD, VIBRATO SPEED, VIBRATO DEPTH AND VOLUME, built in Sustain foot switch.



UK TRADE DISTRIBUTORS:

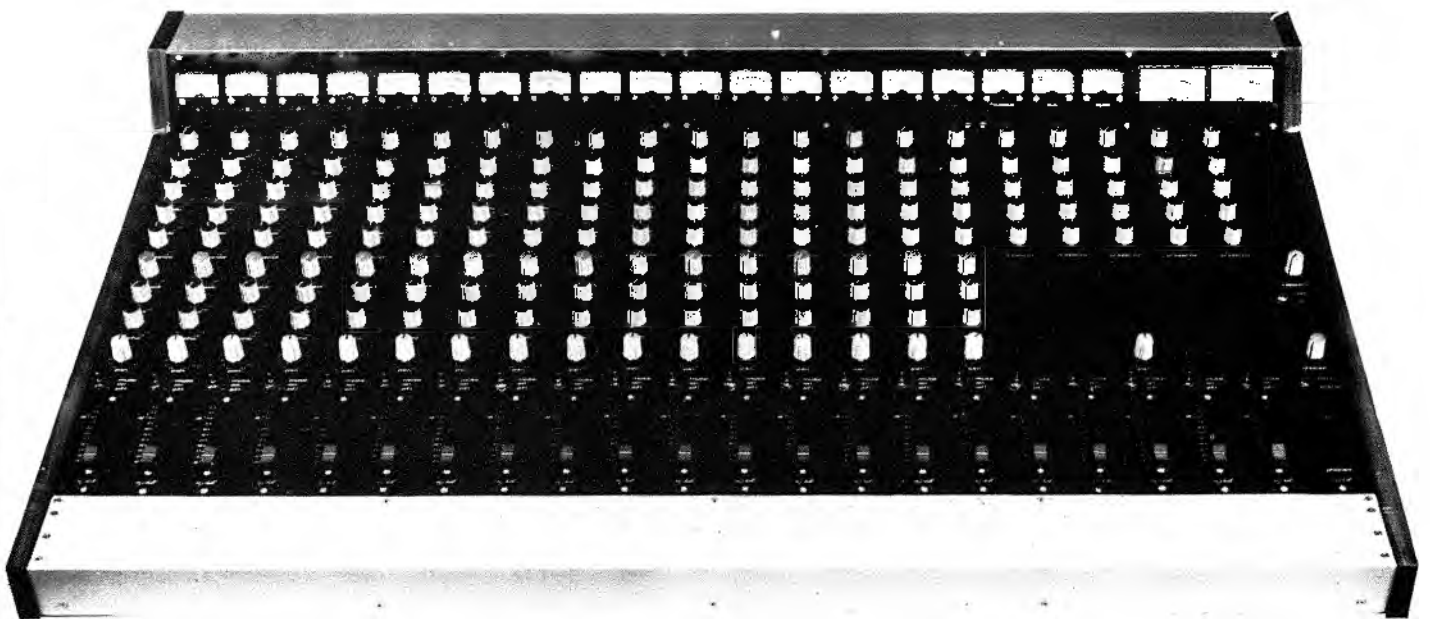
**hornby skewes**

AVAILABLE FROM ALL GOOD MUSIC STORES

**HILL  
P.A. SYSTEMS**

modular mixers, 4-40 in, 2-16 out.

16 ch. 'B' (illus.) £796



**MIXERS, POWER AMPLIFIERS, COMPLETE SOUND SYSTEMS.**

**E.R.C., Castle Hill Farm, Tonbridge, Kent.**

Tel: 0892 - 26927

TRADE SUPPLIED

-

WORLD-WIDE AGENCIES

## Cabinets

### Vox

Manufacturers of the much beloved AC 30, Vox also make the FB215 and the FB118 cabinets, either of which is recommended for use with the Vox AC 50 bass amplifier. The former measures 36" x 19" x 12" and houses two 15" speakers, while the latter is 26" x 22" x 16" and encloses a single 18" speaker.

The Vox 212 is a very efficient dual purpose speaker enclosure, incorporating two Role Celestion 12" heavy duty 1088 loudspeakers. The cabinet is pressurised, and the dimensions are 27" x 16" x 19½". This last model is supplied with an optional metal swivel stand.

### White

White Sound of Sunderland offer four cabinets, specialising in high output without resorting to a large number of cabinets. The B30 lateral bass horn is coupled with two 15" Gauss drivers, and handles 400 watts. The H100V radial horn offers excellent sound distribution at loud volume levels, and can be coupled with the Vitavox S3 driver. It handles 70 watts.

### Wing Traynor

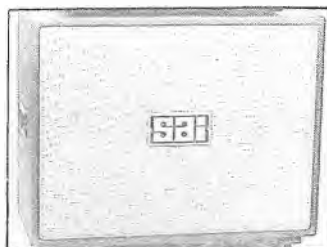
Wing Traynor offer a broad range of cabinets at very competitive

prices. The YS-15P houses a single 15" speaker, while the YT-15 houses twin 15" speakers. The YF-10 encloses four 10" speakers, the YC-8 10 encloses eight 10" speakers, and the YC-6 10 encloses six 10" speakers.

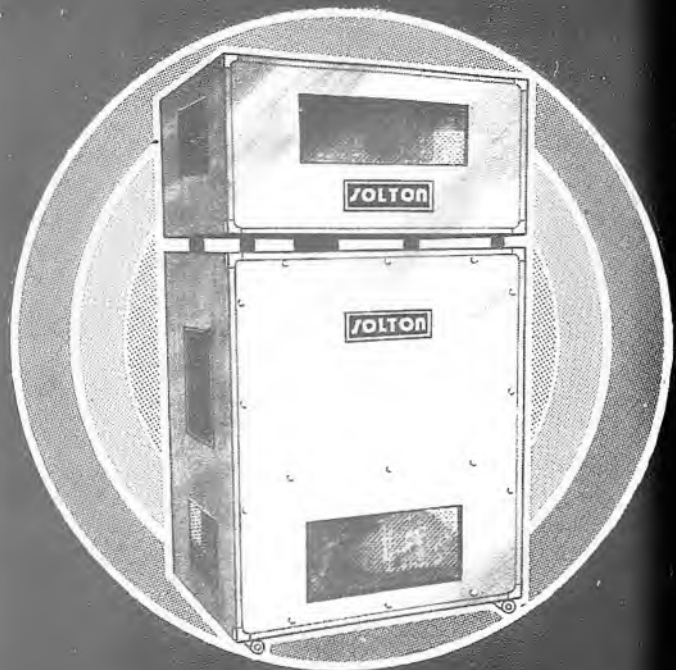
The quest for a 2 x 12" cab is answered by the Y 2-12, while the YF-12 provides a cabinet with four 12" speakers. The YCV 118 houses a single 18" speaker, the YCV-215 houses two 15" speakers and, last but not least, the YCV 212 houses two 12" speakers.

The S50 P.A. enclosure is designed for the solo artist, utilising a White 412A driver, front loaded into a tuned ported enclosure, handling 50 watts. The A20Q cabinet boasts four front loaded White 842 drivers housed in a tuned enclosure with central port and baffling. □

S.A.I.'s 2 x 12" Super Lead



# portable power



the

# SOLTON

2-speed

rotary speaker system  
with brake

has an amazing output of 130/160 watts and has two inputs for jack plug connections to any organ, guitar, electric piano, etc. Solton is rugged, powerful, portable and is available from C.O.S. with free delivery anywhere in the U.K.

£495 (including VAT)

Hire/purchase and part exchange welcome



Chingford Organ Studios Limited

230 Chingford Mount Road, Chingford, E4.  
Tel: 01-524 1446



# THE NUMBER ONE STRING

because...

IT'S THE CHOICE OF ... ..

SLADE · ALICE COOPER

THE WHO · WIZZARD

EMERSON, LAKE AND PALMER

ELTON JOHN BAND · YES

GENESIS · T.REX · EARTH BAND

E.I.O. · LED ZEPPELIN · STRAWBS

Choose your Rotosound strings at your music store

Or write for lists and nearest stockists to:

JAMES HOW INDUSTRIES LTD.,  
20 UPLAND ROAD, BEXLEYHEATH, KENT, ENGLAND

# PRICE SCANNER



LM's Price Scanner aims to be the most comprehensive guide to the retail prices of musical instruments and equipment available. In addition to listing as many retail prices as possible, we're also publishing a guide to second-hand prices.

As months go by, we're hoping to build up this second-hand price section to cover as many items as possible. To this end, we'd be grateful if you could let us know about your experiences with used instruments and equipment. You will see two extra prices against certain instruments (usually the ones most likely to turn up as regular second-hand bargains). These two prices represent a swing between the extremes from the private sale price for an instrument in poor condition and the top price a dealer will charge after he has added the cost of his overheads and VAT to the price of an instrument in good condition. Depending on the condition and method of sale of the instrument you are interested in, you will be able to calculate where in the swing it will fall. We've compiled our second-hand prices from the state of the market as it stands, but of course you may well find special bargains or particularly good instruments outside our limits. We haven't offered second-hand prices for many of the copy guitars, but we suggest you take 50% off the retail price — always allowing for a little fluctuation. All our new retail prices are exclusive of VAT, and while we have taken exhaustive care to ensure that the prices are correct, we'd be obliged if you could let us know of any omissions, additions or deletions necessary. Unfortunately we have to disclaim responsibility for any problems arising out of any inaccuracy in this price guide.

<b>SPEAKER UNITS</b>			
4 x 12" B, 120W	153.00		
1 x 18" 100W	107.00	40-60	
40 Bass Bin 100W	125.00	75-100	
Mini Bin 100W	130.00	80-100	
4 x 10" P.A. 100W Pr.	116.00		
2 x 12" P.A. 80W Pr.	121.00		
2 x 12" P.A. 120W Pr.	155.00		
4 x 12" P.A. 180W Pr.	227.00		
4 x 12" 50A, 240W Pr.	232.00		
2 x 12" 1 Horn 80W Pr.	157.00		
2 x 12" 1 Horn x 20W Pr	191.00		
Horn Unit (2) Pr.	107.00		

<b>CBS/ARBITER</b>			
<b>GUITAR AMPS</b>		250-350	
Dual Showman	557.00		
Dual Sh man Top	325.00		
Dual Sh man Enc	266.00		
Quad (Fender)	427.25		
800.00			
Spr. Sw (Fender)	400.00		
Spr. Sw (JBL)	702.92		
Tw. Rev (Fender)	358.00		
Tw. Rev. (JBL)	446.00		
B/mstr. (Fender)	351.00	200-300	
B/mstr. (JBL)	448.00		
B/mstr. Top	226.98		
B/mstr. Enc.	155.00		
Spr. Rev. (Fender)	309.00		
Spr. Rev. (JBL)	462.00		
Pro. Rev.	285.00		
Vibrolux Rev.	237.00		
DeLuxe Rev.	189.00		
Princeton Rev.	142.00		
Princeton	105.00		
Vibro Champ	82.00		
Champ	56.46		
<b>BASS AMPS.</b>			
Bsman 100	371.00		
Bsman 100 Top	210.00		
Bsman 100 Enc.	198.00		
Bsman 50 (Fender)	309.00		
Bsman 50 (JBL)	399.00		
Bsman 60 Top	161.00		
Bsman 50 Enc.	173.00		
Bsman 10 (Fender)	249.00		
Bsman 10 (JBL)	399.00		
M/Mstr. Bass	88.00		

<b>P.A. SPKRS</b>			
VP25 40W	44.80		
VP40 40W	53.50		
DK45 45W	58.60		
DK75 75W	92.50		
DK90 90W	115.00		
DK120 120W	160.00		
DK180 180W	196.00		
OK200 200W	T.B.A.		
<b>P.A. HORNS</b>		110.00	
10 100W Bxd Hn.			

<b>P.A. BINS</b>			
Exponential 100W	145.00		
Titan 100 100W	160.00		
Titan 150 150W	196.00		
<b>ELECTRO VOICE</b>			
AC100	62.79		
AR150	32.79		
AR400	18.50		
AR500	18.50		
FC100	34.69		
FR150	37.79		
HC400	12.29		
M253	203.00		
1823M	52.78		
1823S	33.50		
1828C	21.50		
1828R	21.50		
1828T	29.49		
1829	34.09		
1829T	42.29		
PA12	15.59		
PA12-45	15.59		
PA12F	18.50		
PA30A	22.39		
PA30A-45	24.00		
PA30AT-2	30.39		
PA30AT-7	30.39		
PA30R	24.19		
PA30RT-2	34.09		
PA30RT-7	34.09		
PA30R-45	24.00		
944A	30.98		
947A	37.79		
948A	56.19		
Musicaster IA	72.90		
Musicaster IIA	83.50		
Supercaster	89.00		
Eliminator I	259.33	115-150	
Eliminator II	220.00	100-135	
Sentry IA	194.44		
Sentry IIA	194.44		
Sentry III	450.00		
Sentry IV AR	414.81		
LR2 SAT	63.79		
LR4B	190.00		
LR4SA	96.00		
LR4SAT	111.69		
EVM12 L	61.60		
EVM15B	69.00		
EVM18B	79.50		
LSB	19.89		
LS12A	24.39		
LS15	29.09		
LTB	35.18		
LT12	37.52		
MCB	17.05		
MC12	21.50		
SP8B	27.50		
SP12B	35.00		
SP15B	56.50		
SP15	77.00		
12TRXB	83.00		
15TRXB	84.00		
15TRX	104.00		
125A	40.00		
8HD	15.39		
T35	21.50		
T350	46.60		
30W	193.09		

<b>DDL1745 A Dgtl.</b>			
Delay Line	251.00		
2B2E Omniprs.	325.00		
<b>PANDORA</b>			
A-080-1 80 & 9			
DK120 120W	1380.00		
m/sc. dt. 1.0/pt.	2185.00		
A-200-2B Time Line			

<b>ORTOFON</b>			
G0741	5412.00		
CPS 741	1942.00		
DSS731	2855.00		
DSS732	2620.00		
STI 732	650.00		
CPS681	1845.00		
GKS681	370.00		
LV701	252.00		
SSJ701	352.00		
SM721	327.00		
DS681	540.00		
<b>FM ACOUSTICS</b>			
<b>E2-E4 Network</b>			
in housing	55.56		
<b>E2-E4 Network 3-way</b>	38.89		
D5 Driver	57.41		
D4 Driver	52.78		
O2 McInnell driver	52.78		
FM C35 15 cell horn	281.48		
FM CB HF hrn	28.70		
FM C7 ESThn.	19.75		
FM C5 EST hn.	21.30		
SSH Distort. booster	37.96		
SSH Phase-lifter	52.78		
SSH Vdf super pedal	82.41		
SSH E-1 of pedal	66.67		

<b>TS 100 slave</b>	180.91		
TS 110	222.72		
TS 200,200W	309.08		
YBA 100 Bass	349.07		
YBA 200 Bass	586.34		
YBA 300 Bass	843.61		
BS 100 Bass	247.27		
YDS 200,200W			
2x12s & slaves	361.81		
YDS 200 H 200W			
with horns	668.30		
YDS 400,400W			
4x12s & slaves	618.17		
YDS 400 H, 400W			
with horns	925.43		
YDS 600,600W 2x12s			
4x12s, slaves	979.80		
YDS 600H, 600W			
with horns	1287.06		
YDS 602 H, 600W			
with horns	1594.31		
YDS 602B, 600W			
4x12s, reflex	1112.70		
YDS 600H, 600W			
with horns	1419.96		
YS 800,800W	1236.33		
YDS 800H, 800W			
2 horns	1543.69		
YDS 802H, 800W			
4 horns	1850.85		

<b>P.A.</b>			
EM 50A6ch	107.27		
EM 90A6ch & rev	166.26		
EM 320A, 60W	217.90		
PM 2008ch	185.45		
PM 4008ch	369.44		
PM 100016ch	P.O.A.		
<b>CABINETS (PAIRS)</b>			
ES 60A, 1x12	63.64		
ES 90A, 1x12 & FH	90.91		
ES 130, 4x8 col	108.09		
PS 75, 120W	318.18		
PS 100, 200W	433.63		
TS 100, 200W	361.81		
TS 200, 400W	618.17		
YBS 100 HD hn	307.25		
YBS 100, 200W	494.54		
PS 400	878.70		

<b>HORN PA SYSTEMS</b>			
<b>Modular Desks (40ch max)</b>			
15 into 2 C srs.	538.88		
15 into 2 B srs.	737.03		
16 into 4 B srs.	924.07		
16 into 4 D srs.	1407.40		
16 into 2 K srs.	895.37		
16 into 4 K srs.	1245.37		
<b>NON-MODULAR DESKS</b>			
10 into 2 M 102	217.59		
16 into 2 M 102	356.48		
<b>POWER AMPS</b>			
1 C 10B S 100W/			
8ohms	71.29		
1 C 20B S 200W/			
8ohms	110.18		
1 C 40A S 400W/			
4ohms	175.92		

<b>BINS/HORNS</b>			
Martin Bins	184.25		
JBL 2420	184.25		
JBL 2482	268.51		
Gauss 15" Chassis	79.62		
<b>H.H. ELECTRONICS</b>			
<b>POWER AMPS.</b>			
TPA1000	98.00		
TPA800	70.00		
AM/8/12	46.00		
TPA250	52.00		
TPA250 19"	52.00		
TPA250-M	50.00		
<b>AMPS.</b>			
1/C 100 Id.bs.org.			
tw/rev 100W	137.94	75-110	
1/C 100-S od.bs.org.			
100W	111.60	70-95	

<b>Nolan 2x12 P.A. cabs.</b>			
(pr.)	105.80		
Nolan 4x12 Ld./Bs	119.60		
<b>Nolan dual C. Horn</b>			
2x12 (pr.) Cabs	142.60		
Flame 50W.amp.	69.00		
Flame 60W, 2x12			
Combo.	105.80		

<b>NICHOLLS</b>			
<b>HORN SYSTEMS</b>			
2x12 shpd cab. 2 Mhdax			
hns 150W	132.78		
4x Middax hn. cab.	119.81		
<b>SPKR. SYSTEMS</b>			
2x15 bs.ref	154.26		
1x18 100W G Bs. cab.	92.16		
2x12 100W G			
shpd. cab.	91.31		
2x12 100W C cab.	82.25		
4x12 400W G cols.Pr.	236.86		
4x12 200W C cols.Pr.	211.20		
4x12 200W G cab.	134.23		
4x12 100W C cab.	106.66		

<b>ITEM</b>			
6-chn. mtr.	152.67		
200W slave	153.39		
120W slave	115.12		
6-chn. 120W PA	173.15		
200W SL	162.74		
120W SL	120.44		
<b>NOVANEX</b>			
AVT 3	27.68		
AVT 6	32.31		
AVT 10	46.20		

**ADD-ONSYS**

Bose 800 Add-on pair	335 00
<b>SINGLE 800/EQUALIZER</b>	
Bose 800, Part I	222 50
<b>SINGLE 800</b>	
Bose 900, Part II	167 50

**AMPS.**

Bose 1800 Prof.	550 00
-----------------	--------

**BOOSEY & HAWKES**

LANEY AMP'N.	
L60	122 45
L100	134 88
L4 12 B100	148 79
L4 12 S120	153 47
L60 PA amp	122 45
L100 PA amp	151 85
L2 12 PA60 col.	166 66
L4 12 PA100 col.	295 18
LV11 reverb un.	58 33

<b>HAWK AMP'N.</b>	
9880 5 w.	26 80
0885 15 w	41 88
9886 25 w.	53 47
9887 50 w.	74 02

<b>AMPEG</b>	
VT40 60 w.vl.	268 19
VT22 100 w.vl.	412 00
G2 12 120 w. s/s	318 00
G4 10 120 w. s/s	359 00
G4 12 120 w. s/s	395 39
B1 15 120 w. s/s	289 19
B4 10 120 w. s/s	331 84
B15 5 60 w.vl.	340 92
B15 N 30 w.vl.	288 19
HDSVT 300 w.vl.	388 19
HDV4 B 100 w.	
vl.bs.	238 63
HDB25 B 55 w.bs.	184 35
HDV4 100 w.vl.	268 14
HDV2 50 w.vl.	243 85
HDV6 B 240w.	
s/s.	296 09
EXSV7 240w.	
8x"D	268 14
EXB4 B 240w.	
2x"5	420 39
EXB25 B 120 w.	
2x"5	130 19
EXV4 120 w.	
4x"2	177 31
EXV2 120w.	
4x"2	197 31
EXV6B 240 w.	
2x"5	230 89
SR6 120 w. PA.	
com.	545 35

**CANARY MIXERS**

<b>B SERIES MIXERS</b>	
12/1	496 00
12/2	573 00
15/2	687 00

**FREIGHT CASES**

12 ch.	31 00
15 ch.	38 75

**A SERIES CUSTOM MIXERS**

20/6/2	2860 00
16/8	2600 00
24/2	1700 00

**CROSSOVERS**

2 way stereo	68 19
3 way stereo	79 04

**CARLSBRO**

VALVE	
60 TC	108 00
100 TC	144 00
60/5 P.A.	123 00
60 P.A. Reverb	137 00
100/7 P.A.	163 00

<b>S/STATE</b>	
Stingray	116 00
Stingray Super	144 00
Stingray Combo	188 00
Stingray Super Combo	217 00
Marlin	153 00
Slave	92 00
Scorpion	96 00

**PACABINETS**

2x10 col. 60w Pr.	100 11
4x10 col. 120w Pr.	142 26

<b>Morn cab</b>	
2x12 col. 100w Pr.	91 57
5x10 col. 150w Pr.	127 87

<b>SOLID STATE</b>	
50w L&B	118 84
100w L&B	127 57
50w PA	118 84
100w Met. PA	153 50
100w slv.	111 36
250w slv.	191 60
B Ch. Mxr.	257 41
50w Combo Amp	173 05

<b>CELESTION SPEAKER</b>	
G12 M25W	15 33
G12 H30W	18 28
G15 M50W	22 98
G18 C100W	41 23
S10 15W	5 49
G16 Twin Cone 50W	25 07

**J.T. COPPOCK**

<b>ELGEN</b>	
100w id.	115 27
100w bs.	115 27
100w ster.	127 31
100w ster. slv	104 62
100w PA.	119 90
100w PA. slv.	80 09
50w G/P	80 09
50w combo w/reverb	159 25
50w bs. combo	137 07
fld. hn. cab. FH100A	184 44
50w bs. combo	
fld. hn. cab. FH100A	185 74
1x15 cab 150w	158 05
1x15 cab 100w	150 29
4x12 cab. pr.	114 81
4x12 cols. pr.	177 31
2x12 cols. pr.	113 42

**CUSTOM SOUND**

<b>AMPLIFIERS</b>	
CS700A PA/Mx. 150w	160 50
CS700B Twn. Rev.	
Hd 150w	133 50
CS700C Pwr. Amp	
150w	97 50
CS700D Combo	172 50

<b>ENCLOSURES</b>	
CS7 212 D	58 50
CS7 212 G	58 50
CS7 115 D	90 00
CS7 215 G	135 00
CS7 412 G	97 50
CS7 H	58 50
CS7 000	846 00

**DAVOLI**

<b>AMPS</b>	
50W	106 00
100W	140 00
200W	210 00

<b>CABS.</b>	
B50 60W	59 50
B60 60W	85 00
B60 90W	92 00
B150 150W	T.B.A.

<b>COMBO AMPS</b>	
J6 6W	33 00
Tempest 25T 25W	67 00
Tempest 50 50W	130 00
Tempest 50 150W	134 50
Sup Stud. 500 50W	141 00
Sup. Stud. 1000 100W	205 00
Storm 25 25W	62 00
Storm 50 50W	133 00

<b>MIXERS</b>	
60/92K 50w	85 00
Clipmn. 50w	180 00
Mixer & 100W	310 00
Compact Mixer	125 00

<b>STEREO MIXERS</b>	
Mxr. 12 Echo F	420 00
Mxr. 12 +5	992 00

<b>SLAVES</b>	
UP100	108 00
UP200	132 00
UP100 + 100	145 00

**E.S.E. S.EQUIP.**

1002 N/S	224 75
1005 AP200	187 54
1006 S/L200	157 28
1007 PA200/R	204 50
1010 PA100TC	133 00
1011 PA100S	133 00
1012 PA60TC	83 03
1013 PA60S	83 03
1015 B200	225 00
1018 FH200	225 00
1022 S120	165 00

<b>(BINSON SALES)</b>	
<b>SPK'R. CABS.VLT.REGS</b>	
30w Col.	97 00
60w Col.	166 00
120w Col.	253 50
60w Col.	126 00
100w Col.	215 00
60w Col.	149 00
100w Col.	182 00

<b>AMPLIFIERS</b>	
50w ster.	185 75
100w ster.	293 50
50w ster.trans.	281 50
100w ster.trans.	318 75
6 Chs Mx.	210 00
8 Chs. Mx.	234 00
6 Chs. Mx.	223 50
4 Chs. Mx.	187 00
4 Chs. PA Mx.	231 00
100w PA. slv.	262 00
6 Chs. PA Mx.	210 00
8 Chs. PA Mx.	275 50
100w slv.	181 00
10 Chs. PA Mx.	635 00
18 Chs. PA Mx.	761 50
100w Comb.	336 50
200w Comb.	393 87
100w Amp & Cab	427 00
200w Amp & Cab	487 50
100w6 Chs Mx.	618 67
200w6 Chs Mx.	659 00
100w8 Chs Mx.	659 00
200w8 Chs Mx.	686 50

**F.A.L.**

Minstrel	24 75
Maestro	45 00
Bass Flesta	55 00
Phase 50	45 00
Super 60	83 00
Phase 100-2	72 00
Super 100	76 80
Model 120-5	89 80
P100 Slave	42 00
P200 Slave	53 00
FAL 50	33 00
FAL 100	55 00
PA 200 Cols.pr	136 00

**FARFISA**

<b>ORGAN AMPS</b>	
RSC 350	545 00
RSC 180	315 00
OR 200	475 00
T.R. 70	215 00

**FELDON AUDIO**

<b>J.B.L. LOUDESPEAKERS</b>	
K110 10" id. 75w	63 70
K120 12" id. 100w	80 60
K130 15" id. 125w	81 90
K140 15" bs. 150w	91 00
K145 15" bs. 150w	102 70
K151 18" bs. 150w	153 40
2901 300w	136 00
4681	581 00
4682	647 00
L16	79 00
L26	89 00
L36	139 00
L45	306 00
L85	258 00
L100	195 00
L120	297 00
L200	434 00
S109	139 00
S507	549 00
S508	693 00
S607	549 00
S608	693 00
D44000	1995 00

**EVENTIDE CLOCKWK****P.A. AMPS**

MA100 5 ch./rev.	
100w	138 72
MA100-S 5ch 100w	119 34
S130 sl. amp 120w	89 90

<b>P.A. SPKR'S</b>	
1010 PA100TC	86 80
212DC 2x12" 100w	
412DC 4x12" col.	132 52
160w	

<b>UNIT P.A. SYSTEMS</b>	
50w radial horn	89 88
1150s compact	
1x15" 100w	96 33

**HÖHNER**

<b>AMPLIFIERS</b>	
G2	31 81
G3	84 19
G4OR	75 97
G5OR	68 06
GBD12B	71 85
GR015B	83 47
1500B	119 44
1500B	80 19
1500B speaker	59 26
PA500	83 47
SM600 Mixer	83 47
SC4 10H speaker	83 47

<b>SPEAKERS</b>	
M9 D8	3 01
M10 L10"	15 23
M10 N10"	6 81
M12 L12"	21 76
M12 N12"	15 51
M12 Q12"	8 24
M15 D15"	44 07
M15 L15"	26 56
M15 N15"	19 26
M15 Q15"	10 56
M600 Mp mix	34 10
M600 Horn	101 50
M1200 Horn	27 98

**HORNBY-SKEWES**

<b>MILES PLATTING</b>	
V.50	81 36
V 60-S Spkr	66 02
V 100	100 39
C.30	118 22
C.50	138 40
PA 50	94 30
PA 30-S PA Spkr.	107 83
PA100	111 86
PA 100S PA Spkr.	179 72

<b>ZENTA</b>	
CD155N	54 45
PL TR15	66 50
Z3	25 77

**JENNINGS**

<b>AMPS.</b>	
V 30 30w	163 00
AP 50 50w	174 00
V 100 100w	145 00
AP 100 100w	115 00
FR 50 50w	79 00
FR 100 100w	96 00

<b>SPEAKERS</b>	
S.1 1x15"	95 00
B.2 2x15"	115 00
B.3 1x15"	78 01
B.4 4x12"	135 00
T.50 2x12"	83 00

<b>P.A.</b>	
P.A. 100	148 00
2x12 col/horn	109 00
2x12 col.	90 00

**KEMBLE**

YTA 15 25w	90 00
YTA 25 25w	99 90
YTA 45 50w	171 81
YTA 95 100w	226 36
YBA 45 Bass. 45w	126 30
YBA 65 Bass. 65w	214 54
YTA 100 100w	301 81
YTA 110	343 62
YTA 200 200w	42 94
YTA 300 300w	610 89
YTA 400 400w	739 06
YHS 100 Horn	153 63

**LESLIE SPEAKERS**

100	118 52
125	254 63
145	273 15
147	393 52
147 RV	481 11
122	393 52
122 RV	481 11
251	449 07
700	412 04
710	498 15
770	461 11
18	208 33
60	365 74
825	342 59
760	481 11
910	625 00
950	1108 48
9420 Pre-amp	75 00
9370 Pre-amp	69 44
9340 Pre-amp	41 67
9875	53 70

<b>HOHNER</b>	
<b>AMPLIFIERS</b>	
G2	31 81
G3	84 19
G4OR	75 97
G5OR	68 06
GBD12B	71 85
GR015B	83 47
1500B	119 44
1500B	80 19
1500B speaker	59 26
PA500	83 47
SM600 Mixer	83 47
SC4 10H speaker	83 47

**LIVINGSTON**

<b>SPEAKER CABINETS</b>	
2 ch.	120 00
3 ch.	150 00
2 ch.	120 00
2 ch.	120 00
3 ch.	150 00

Sound Equipment

SG115 J Gl 15	452.78
JBL Spkr	
SG410 G1-4-10 Spkrs.	406.48
SG6 10 Gl 6-10 Spkrs.	462.04
SG2 15 Bs 2x15 Spkrs.	325.93
SG5 12 6 ch. PA 4x3/2	647.22
SG8 12 HD PA Head only	329.70
SG8 12 Col-Half PA 2x12 Spkr.	81.94

SHARMA

ORGAN SPKR. CABS.	
500	111.29
500 Prof.	147.02
500 d.I.	161.25
650 Prof.	216.89
Sharmette	215.01
2200	245.69
2000 Prof.	280.89
2000 d.I.	283.50
2100 d.I.	374.72
2300 d.I.	392.72
5000 Prof.	363.24
5200 d.I.	515.19
5300 d.I.	605.41
Combo Pre-amp	30.75
Combo Pre-amp d.I.	34.13
Rev.	44.82

DAVE SIMMS MUSIC PRODUCTS

AUGUSTAMPS	
PA 100w 4ch /echo/ slavs	92.50
2 x 12" PA/Cols.	116.25
prs.	
1 x 12" PA/Cols.	73.60
prs.	
1 x 12" PA/Horn	101.50
prs.	
2 x 12" Cab.	69.20
4 x 12" Cab.	105.40
"V" 4 x 12" Cab.	111.60
1 x 15" Horn Bin	116.25
Add on Horn Units	
prs.	77.50

SIMMS-WATTS

12051 100w PA mar.	189.81
Hammond Rev. Mxr.	71.99
100 Pwr. Slv	87.96
Hrn. PA Bin	157.31
2x12" cols	153.47
1x12" Hrn. cols	125.00
All purp. SC	92.13
AP100	143.52
Sup 200 PA	196.30
Sup AP 200	171.99
G.E. 100	153.47
2x12" all purp. cab.	78.66
2x12" Hrn. cab.	87.96
1x15" Hrn. cab.	82.87
1x15" bs.spk.cab.	73.81
60/100 pro-com.	184.26

SOLA SOUND

Buckaroo 7w	26.41
Nightr Atom	22.73
Col./Snd. Compact	34.25
Power Pack 15	50.60
Power Pack 20	77.27
Bass 30	68.18

SOUNDCRAFT ELECTRONICS

MIXER CONSOLES	
16/2 (Mk 2)	1000.00
12/4 (Mk 2)	875.00
16/4 (Mk 2)	1120.00
Mod. Cons.	P.O.A.
Count. JBL Spkr Systems	P.O.A.

SOUNDOUT

HE1c.50w	45.00
HE2c. 100w	75.00
DLS 100w	15.23
DLS 200w	202.46

Std. 130w	157.50
F-800 G 410w	375.00
F-800B 410w	295.00

SPKR. CABS.

1 x 15" All purp. 80w	90.00
2 x 12" Guit./KB 100w	112.50
2 x 15" All purp. 150w	150.00
6 x 10" Guit./KB 150w	Special
8 x 10" Guit./KB 200w	Special
4 x 12" Guit./KB 200w	150.00
2 x 15" + Horn	
Guit./KB 150w	165.00
1 x 11 1/2" Bs/Org	110-150
100w	225.80
6 x 12" Guit./KB 200w	Special
1 x Bs/Org. 100w	Special

PA SYSTEM	
PA 120 4ch. 50w/2	
2 x 10" Spkrs	249.42

PA AMPS

Std. 130w	165.00
PA 400 210w	225.00
PA 600 210w	405.00
PA 900 400w	525.00
800M 8 ch. Mlx.	240.00
260 Bstr. 130w	135.00
800 Bstr. 400w	255.00

SPKR. CABS. (PA)

4 x 10" 50w col.	67.50
1 x 12" +Horn 50w	67.50
2 x 12" 75w col.	67.50
2 x 12" +Horn col.	97.50
4 x 12" 150w col.	97.50
4 x 12" +Horn 150w	120.00
col.	
2 x 15" + Horn 150w	187.50
Festival Spkr Enc.	225.00
Festival Projector	
Horn	135.00

VITAVOX

PRESSURE UNITS	
Type S3	74.07
Type GP1	30.42
Type GP2	20.37
Type GP2 T	31.94

LOUDSPKRS	
AK 123 15 ohms	42.13
AK 124 15 ohms	42.13
AK 156 15 ohms	64.91
AK 157 7.5 ohms	64.81
WN 350 15 ohms	17.45

VOX

VOX AMPS	
AC 30 Top Boost	158.10
AC 50	109.26
45-85	
35-75	

SPEAKERS

FB 118 Cab.	89.07
FB 215 Cab.	105.56
55-65	
60-75	

WHITE

LW 100	149.00
SL 150	119.00
SL 250	135.70
PA 150	195.00
M50 1x12 mnt.	62.90
PA 50 1-12 PA cab.	52.00
PAS 100 2-12 PA cab.	82.20
PAS 100 4-12 PA cab.	137.20
LW 200 4-12 gr. cab.	137.20
AP 100M 1-LSgt. cab.	103.96
PAS/H154 PA cab.	238.85
PAR 123 1-12 bin	181.90
PAR 155 1-15 bin	211.15
PAR 152 1-15 fld hrn.	202.70
H100 E hrn	162.60
H100 V hrn.	205.10
tens	327.00
1-18 fld hrn.bs.	222.00

WING TRAYNOR

COMBOS	
YGM-3. 30	90.00
YGM-4. 40	111.00
YGL-9.90w	195.00
YBA-28 Bass 30w	90.00
YBA-4.50w	141.00

MONITORS

FB5 2 way wdg	185.00
FB6 2 way wdg.	295.00

INSTRUMENT CABS.

IC1 1x15 ref/ld	120.00
IC2 2x15 ref/ld	200.00
IC3 1x15 ref/lf	120.00
IC4 2x15 ref/ld	200.00
IMC1 1x12 ext. cab.	108.00
SD18 1x18 r/hrn.bs.	240.00

COMP. MXR.

10	906.69
15	1183.34
23	1576.85

Keyboards

BOOSEY & HAWKES

ORGANS	
Diamond 800	540.74
Bass Pedal	52.73
Diamond 500	163.43
Diamond 700	340.74
Diamond 700	295.60

CBS/ARBITER

HAVEN ORGANS	
Model 101	666.00
Model 102	980.42
Model 103	1240.00
Model Traveller	
Portable	842.00

CRUMAR

Organiser	450.00
Stringman	461.00
Jazzman	360.00

KEYBOARD INST.

Rhodes Suitecase.	
88 Note	1083.00
Rhodes Suitecase.	
73 Note	944.00
Rhodes Stage.	
88 Note	683.00
Rhodes Stage.	
73 Note	628.00
Super Satellite	
Power Speakers	665.00
Rhodes Bass	363.00

J.T. COPPOCK

ELGAMELECTRONIC ORGANS	
244	445.37
244C	504.62
237	300.00
237C	361.11
2049C	152.77
249	281.48
2049R	225.00
610	249.00
610R	298.14
3049 DL	189.81
3049 DLR	238.85
2049	145.37
1049	112.96
1037	87.96

ELGAMELECTRONIC PIANO

Gypsy	310.18
Portable	184.25

DAVOLI

KEYBOARD & SYNTHESISERS	
Davolisint	215.00
Sintecord	260.00

ELKA-ORLA

TornadelV	234.28
T.L. 48	234.28
Capri Junior	250.60

Piano EP 10	242.00
Synth SH 1000	348.00
Synth SH 3	386.00
TR 33 Rhythm Unit	89.00
TR 330T Rhythm Unit	89.00
TR 65 Rhythm Unit	95.00
Dolphin	440.00
Dolphin De Luxe	578.00
Cougar	303.00
X-2	366.00
X-5	921.00
A/V 64	153.00
Grandee	3471.00

HOHNER

KEYBOARDS	
Mini KORQ 700	300.93
Mini KORQ 700S	366.48
Clavinet D5	323.56
Planet N	221.39
Combo Planet	173.99
Hi Piano	212.27
Base 2	125.93
Electric	462.04

ORGANS

Organet 41	223.99
Organet 40	386.33
Organet 40 RA	539.95
Organet 440 S	735.46
Consul	328.43
Weekend	432.96
President 3	488.70
Organetta 1	66.44
Organetta 2 D/L	123.44
Organa 249/249K	160.98
Organa 244	236.34
Organa Stool	10.88

JOHN HORNBY-SKEWES

JEKO CONSOLE MODELS	
Tivoli 12	88.00
Tivoli 18R	115.20
Domus 37A(TV)	368.00
Camtorum 44A	384.00
Domus 44A(TV)	456.00
Corale LTS	792.00
Coliseum s.p	1116.00
Majestic Auto TC	1116.00

EKO PORTABLE ORGANS

Tiger	200.00
Tiger Mate	260.00
Tiger B1	260.00
Tiger B1 R	300.00
Tiger Duo	318.00
Tiger Duo R	364.00
Tiger Duo A	396.00

LOGAN CONSOLE ORGANS

Weekend	338.67
Holiday 300	448.00
Holiday 400	560.00

ADD-ONE ELECTRONIC KEYBOARDS

Logan String Melody	440.00
---------------------	--------

ELECTRONIC PIANOS

CEP 2 Crumar	184.00
Compac	200.00
CEP 35 Crumar	200.00
Compac	200.00
CEP 625 Crumar	200.00
Compac	200.00

BALEANI CONSOLE ORGAN

403 R Balaeni	180.00
---------------	--------

JENNINGS ORGANS

J 70 2 Man Port	536.00
J 71 3 Man Port	846.00

KEMBLE

YAMAHAK' BDS	
B2 R	340.00
B4 CR	435.00
BK4	500.00
B5 CR	550.00
BK5	619.44
B10 BR	629.63

Troub.	739.81
Troub.	828.13
Cam. Rov.	870.03
Cam. Sup	1149.39
Cal. Quad	1299.00
Monticello/Mog	1895.50
Monticello Thtr./	
Mog. Synth.	1995.00

VOX

String Thing	370.36
Cors. Elec. Org.	370.18
Elec. piano	175.86

Percussion Instruments

BOOSEY & HAWKES

BEVERLY	
Panorama 21	181.15
Panorama 22	273.55
Panorama 24	215.05
Galaxy 18	145.00
Galaxy 21	159.45
Galaxy 24	161.99
6003 Snare	41.85
6005 Snare	28.96
6111 Snare	43.43
6121 Snare	45.37
6130 18x16	37.59
6131 13x9	26.34
6132 12x8	21.71
6136 14x14	34.26
6148 bass 18x15	40.32
6160 20x15	47.02
6162 22x15	43.01
6164 24x15	48.90
6170 20x17	45.69
6172 22x17	50.14
6174 24x17	52.88
6658 bongos	23.24
6739 bongos	23.98
6531 timbales	
13/14etc.	65.60

ZILDJIAN CYMBALS

8"	13.43
10"	15.74
12"	19.51
13"	22.22
14"	26.85
15"	29.17
16"	31.02
17"	33.33
18"	37.96
19"	43.98
20"	43.98
20"	50.93
20"	50.93
21"	49.07
22"	55.56
22"	62.04

ZILDJIAN BRILLIANT

10"	19.44
13"	25.93
14"	30.56
15"	32.41
16"	34.72
17"	37.04
18"	41.20
19"	48.15
20"	48.15
20"	54.40
20"	54.40
22"	59.26
22"	65.51

ADD-ONE ELECTRONIC KEYBOARDS

Logan String Melody	440.00
---------------------	--------

ELECTRONIC PIANOS

CEP 2 Crumar	184.00
Compac	200.00</

**THEATRE PROJECTS**

<b>ALTEC</b>	
1204 B 50w	380.00
1208 B 50w	350.00
1218 A 50w	360.00
1216 A 150w	210.00
1225 A 130w	400.00
1205 BX Spkr.	550.00
1209 BX Spkr.	548.00
1219 AX Spkr.	558.00
1207 C col. 75w	190.00
1211 A col. 60w	150.00
1217 A col. 75w	240.00
612 C spkr.	65.00
828 B spkr.	90.00
815 A L/7" hn.	118.00

<b>MONITORS</b>	
9844 A. 30w	318.00
9845 A. 50w	420.00
9846 A. 100w	440.00
9849 A. 60w	265.00
9846 BX (powered)	620.00

<b>AMPLIFIERS</b>	
771 BX	230.00
9477 B. 130w	250.00

<b>SPEAKERS</b>	
417-8 H. 12 in. 100w	63.00
418-8 H. 15 in. 150w	67.00
421-8 H. 15 in. 150w	82.00
425-8 H. 10 in. 75w	55.00
801-8 D. 12 in. 20w	80.00
604 E. 15 in. 35w	149.00
611 B. hn.	46.00
808/8 A. 30w H/F	68.50
N809/8A. crossover	42.00

**TOP GEAR**

<b>AXAMP</b>	
8at. Port.	13.95

<b>HIWATT AMP/N</b>	
DR 504 AP 50	115.50
DR 103 AP 100	150.00
DR 201 AP 200	192.00
DR 512 PA 50/6	132.00
DR 112 PA 100/6	157.50
DR 203 PA 200/6	216.00
STA 100 Slv. 100	118.50
STA 200 Slv. 400	278.00
SE 4121 Ld. 75w.	123.00
4 x 12" Cab.	55-80

SE 4123 Ld. 100w./Bs.	136.50	45-70
75w x 12" Cab.	136.50	65-80
SE 4122 Ld. 150w./Bs.	153.00	85-110
100w. 4 x 12" Cab	153.00	
SE 260 AP 2 x 15"	190.50	75-95
Hn. 8n 100w	190.50	95-125
SE 320 AP 4 x 12"	190.50	50 75
Hn. 8n 150w	190.50	
SE 2150 50w 2x15"	166.88	
8s Ref. Cab.	166.88	
4 x 12" PA col. 75w	117.00	55-80
4 x 12" PA Col. 100w	141.00	
4 x 12" PA col. 150w	157.50	
2 x 12" PA / Mon	72.00	
cab. 30w	72.00	
2 x 12" PA/Mon.	88.50	
Cab. 75w	88.50	
SA 212 50w 2 x 12"	158.74	90-130
Ld. combo	158.74	
SA 412 50w 4 x 12"	211.50	
Bs. combo	211.50	
SA 4120 100w 4 x 12"	235.50	
All purp. combo	235.50	

<b>PEAVEY AMP/N</b>	
<b>COMB. AMPS</b>	
Pacer 45w	127.50
TNT 45w	142.50
Classic 50w	172.50
Classic 50w	195.00
Vintage 110w	220.00
Vintage 110w	300.00
Deuce 11 110w	255.00
Session 200w	367.50
Session 200w	382.50

<b>AMPS (Hd ONLY)</b>	
Festival 110w	210.00
Road Mstr. 200w	285.00
Century 60w	135.00
Base 210w	210.00
Musician 210w	225.00

<b>AMPS</b>	
YBA-1, 50w Bass	89.00
YRM-1, 50w	111.00
YBA-1 A, 100w Bass	120.00
YGL-3 A, 100w	141.00
Monoblock 325	225.00

<b>SPEAKERS</b>	
YS-15P 15"	81.00
YT-15.2x15"	102.00
YF-10, 4x10"	102.00
YC-8 10,8x10"	170.74
YC-6 10, 6x10"	129.00
YF-12, 4x12"	96.00
YF-12, 4x12"	135.00
YCV-188, 1x18"	252.00
YCV-215, 2x15"	252.00
YCV-212, 2x12"	159.00

<b>P.A.</b>	
YVM-2, 30w	69.00
YVM-3, 30w	90.00
YVM-4, 4ch	159.78
YVM-6, 6ch.	198.00
YPM-1, 100w	90.00
MX8.8 ch.	179.00
MX16, 16 ch	T.B.A.

**W.M.I.**

<b>AMPLIFIERS</b>	
CM.8	15.69
K.66	27.73

**CLAUDE VENET**

<b>M.I.</b>	
L 60w valve	120.00
B 100w Tran.	120.00
T 901 Pre-amp	102.00
T 902 Pre-amp	123.00
T 915 150w Tran	188.00
T 930 300w Tran	240.00
S 80 80w	180.00
Sr 80 + Rev.	200.00
Minix 10w	39.00
1008 SA 6 ch.mix	240.00
1008 + 150 amp.	300.00
1012 mix. 12 ch.	705.00
1012 T + eq.	775.00
1030 mix. 22 ch.	915.00
1030 T + eq.	990.00

<b>POWER</b>	
150 G 150w	172.00
801 M 80w amp	165.00
802 S 80w 2x80	165.00
412 G 100w cab	108.00
118 B 100w cab.	150.00
412 G 100w Col.	108.00
212 C 50w Col.	69.00
APK 150 slave	102.00
APK 280 2x80w	108.00
TPK 409 eq unit	78.00
MPK 602 6 ch	87.00
MPK 603 2 ch.	60.00
MPK 604 6 ch.	123.00
MPK 605	129.00
APK 1702 80w slave	45.00
APK 1501 150w slave	68.00
slave	75.00
UTAH 12" spk.	12.00

<b>SKIPPER CLAUDD</b>	
Custom built Price on application	
<b>ZOOT HORN</b>	
<b>LOWFREQ HORNS</b>	
881 1x15 150w	194.72
882 2x15 300w	315.00
883 1x15 150w	194.72
884 1x18 200w	309.00
885 1x15 100w	145.00
886 2x18 400w	550.00
(order only)	
<b>MID &amp; HIGH FREQ.</b>	
HU1 F/F 75w	140.00
HU2 M/R 120w JBL	342.00
HU3 H/F 30w JBL	208.44
HU4 Ext rge 60w JBL	332.00
HU5 Slant plate	
120w JBL	395.00

<b>Capri Junior/</b>	
<b>Rhythm</b>	271.46
Panther 2250	536.72
X 55 Portable	976.00
728.77	
(Poli brd)	
Concorde 400	79.68
Minute 99 MT	913.23
Capriccio II	562.25
Capriccio II MT	585.72
Capriccio 11/0	670.91
Capriccio 33	777.41
Capriccio 33	883.90
Capriccio 33 MT	969.15
Capriccio 33/D	1075.67
Capriccio 33/DL	1204.00
Notturmo 44L	1033.02
Notturmo 44 MTL	1118.36
Notturmo 44/OL	1224.80
Notturmo 66L	1288.85
Notturmo 66 MTL	1376.87
Notturmo 66/OL	1480.11
Ekapiano/legs.	
case	226.28
Ekapiano 88.	
Console	425.95
Elkarhapsody 490/	
legs	272.11
Elkarhapsody 490	261.15
Elkarhapsody 81D	467.42
Elkarhapsody 610A.	
Console	779.37
Elka 'String Bass'	
Polibrd.	55.08
Elkatone 610P	468.56
Elkatone 610PS	636.81
Elkatone 615PSR	677.32
Elkatone 630PSR	894.35
Elkavox 77 (pianos)	1331.28
Elkavox 77(chromatic)	1427.11

<b>LIVINGSTON</b>	
Chorister 61 MB	380.00
Minstrel	T.B.A.
Abbey Chapel	590.00
Abbey Chapel/13	
Nt. polibrd.	648.00
Abbey Chapel/	
spkr. cab.	680.00
Choral 30/30 nt.	960.00
polibrd.	
Chorale 30/30 nt.polibrd	1080.00
+ spkr. cab.	
Chorister 2-69 B'/32	1350.00
nt.polibrd.	
Chorister 2-69 B'/32	1470.00
nt polibrd+spkr.cab.	

<b>ROSE-MORRIS</b>	
<b>GEM ELECTRONIC ORGANS</b>	
297 Intercontinental	643.51
291 Caravan	115.00
290 Europa	86.06
282 Jumbo Gem	143.63
283 Jumbo 61'	181.74
288 Jumbo 61'	245.99
299 Comb Piano	202.77

<b>LORENZO ORGAN</b>	
296 12 Bass Elec	78.02

<b>SYNTHESISERS</b>	
280 Mini-Korg	270.45
281 Mini-Korg	349.95

<b>SELMER</b>	
<b>LOWREY ORGANS</b>	
Taney Genie	399.00
Genie 44	600.00
Super Genie/Leslie	620.00
Saturn D/Itx	693.00
Genie 88	810.00
Genie 98	971.00
Citation Spinet	987.00
Holiday/Console	1092.00
Holiday/Console/Genie	1389.00
Citation	2079.00
Citation Theatre	1664.00
Spinet	
Citation Theatre	
Console	2079.00
Symphonic Str. Theatre	
Console	3864.60

<b>SELMER</b>	
Standard	171.30
"PR"	203.70
"PR"	245.37
<b>SELMER ORGAN</b>	
Woburn	78.70
<b>KENTUCKY ORGAN</b>	
Challenger	710.42
Explorer	954.17
Adventurer	1191.67

<b>SOLA SOUND</b>	
Compact Piano	181.50
Synthi A	649.00
Synthi DK2 K'bd.	220.00
Synthi AKS	868.00
Synthi DK2 k.b.d.	220.00
Hi-Fi/Synthi	429.00

<b>THOMAS ORGANS</b>	
Eur. Roy.	398.16
Maj. Roy	448.00
Gra. Roy.	640.56

<b>820 BR</b>	795.00
830 R	900.00
CSY1	976.00
BK20 B	1050.00
D 5"	1126.00
DK40 A	1500.00
E10 AR	1984.44
ES AR	2740.74
YC.25 D	577.50
YC.45 D	1078.15
B.P.1	76.00

<b>CBS/ARBITER</b>	
<b>ROGERS DRUMS</b>	
<b>ROGERS HI-HAT</b>	
Studio X	847.00
Compact X	788.00
Studio VII	590.74
Londoner V	545.00
Londoner VI	600.00
Ultraperver VII	825.00
Ultraperver IX	978.63
Starlighter IV	487.22
Dynasonic Snare	110.00
Superten Snare	82.00
Smxy Snare	51.00
Powertone 14-20	
bass	128.00
Powertone	
14x22 Bass	134.00
Powertone	
14x24 Bass	142.00
Powertone 8x12TT	84.00
Powertone 9x13TT	67.00
Powertone 1	
10x14 TT	60.00
Powertone	
12x15TT	68.00
Powertone	
16x18TT	97.00
Powertone	
16x18TT	115.00
Powertone	
18x20TT	142.00
Swivomatic	
hinged heel	30.00
Swivomatic	30.00
Supreme	44.00

<b>PAISTE</b>	
2002 14" Hi-Hat	67.50
Sound Edge	
15" Hi-Hat	71.68
Sound Edge	
14" Hi-Hat	49.26
15" Hi-Hat	49.26
16"	28.19
18"	33.90
20"	42.00
22"	53.80
24"	64.75
18" China	44.75
20" China	56.82

<b>FORMULA 602</b>	
13" Hi-Hat	
Sound Edge	61.84
14" Hi-Hat	
Sound Edge	67.50
15" Hi-Hat	
Sound edge	71.69
14x14x8	48.40
14" Hi-Hat	51.59
14x12x8	57.75
16"	33.00
17"	37.15
18"	39.69
19"	45.39
20"	49.50
22"	63.00
24"	72.22
18"	44.79
20"	56.89
18" China	44.75
20" China	48.99
No. 1 7 Sound Set	19.99
No. 2 7 Sound Set	23.00
No. 3 7 Sound Set	38.34
No. 4 7 Sound Set	44.79
No. 5 7 Sound Set	44.79
No. 6 7 Sound Set	44.79
No. 7 7 Sound Set	56.89
14" Joe Morello	
Hi-Hat	67.50
17" Joe Morello	39.29
18" Joe Morello	44.79
20" Joe Morello	47.63

<b>ZYN CYMBALS</b>	
282 24"	16.60
268 20"	14.20
280 20"	13.90
268 S 18"	14.20
268 S 18"	12.50
278 18"	12.20
276 16"	8.50
275 P 15"	14.40
275 15"	7.20
274 P 14"	12.10
274 14"	5.04
273 P 13"	10.10
273 13"	5.05
272 12"	3.95

<b>HEAVY PRS. SUP-ZYN</b>	
376 16"	53.50
375 15"	48.80
374 14"	44.60

<b>ZYN CYMBALS</b>	
282 24"	16.60
268 20"	14.20
280 20"	13.90
268 S 18"	14.20
268 S 18"	12.50
278 18"	12.20
276 16"	8.50
275 P 15"	14.40
275 15"	7.20
274 P 14"	12.10
274 14"	5.04
273 P 13"	10.10
273 13"	5.05
272 12"	3.95

<b>SONOR CYMBALS</b>	
ZYMBOR	
Z1002 12"	3.56

Guitars

Table with guitar models and prices. Includes Soundventure 24", N.P. Phen. Satin, Rock Kit 24", etc.

ARC

Table listing ARC guitars. Models include ELECT.SLD.BDY, SEMI-ACOUSTIC V.IN, COUNTRY & WESTERN, CLASSIC, DYNELECTRON, PEARL, DANA, JOHN BIRCH, BOOSEY & HAWKES, ANGELICA CLASSICS, ANGELICA JUMBO & 12 STRING, ANGELICA ELECTRIC, LA MANCHA, DI GIORGIO, TAKEHARU, and VITTORIO.

S/H

Table listing KLIRA guitars. Models include Westbury, Blue Hill 6, Blue Hill 12, SM8 Solid, SM9 Solid, SM19 Bs, 355 Bs, 149 Classic, GUYATONESTEEL, COUNTRY & WESTERN, CLASSIC, DYNELECTRON, PEARL, DANA, NATIONAL DOBRO, HAWAIIAN, ANTORIA CLASSICAL, ANTORIA CONCERT, YAMAKI, ANTORIA, G.M.S. PICATO, ELECTRIC, and ELECT.BASS.

Table listing N.169, N.175, N.28, N.29, N.81, N.108, N.74 + Case, N.75 + Case, N.76 + Case, KIMBARA ACOUSTIC, KIMBARA ELECTRIC, FRAMUS, WESTERN 6 STRING, WESTERN 12 STRING, SOLID BODY, SOLID BODY BASSES, SEMI-ACOUSTIC, JAZZ, STEELS, and G.M.S. PICATO.

Table listing C103N, KASUGA ACOUSTIC, TERADA, KASUGA ELECTRIC (NEW MODELS), ZENTA ELECTRICS, ZENTA ELECTRIC (NEW MODELS), KEMBLE, FOLK, SEMI ACOUSTIC, SOLIDS, and ACOUSTIC ELEC.

Table listing Shaft. 6 str, Shaft. 5, Shaftesbury, Ovation B/whr, Ovation D, Top 20 6 str, Top 20, Avon 2 p/u, Avon 2 p/u/bag, Avon 2 p/u/cs, Avon 1 p/u bs, Avon 1 p/u cs, Avon 2 p/u/hag, ACOUSTICS AVIATION, SHAFTES WESTERNS, SIGMA, HOFNER, EKO C & W, ARIA C & W, ACOUSTIC, SUZUKI, ALHAMBRA (SPANISH), STUDENT CLASSICS, ROSETTI, and EPIPHONE.

Table listing SJ de/fx, J 50 de/fx, J 45 de/fx, J 65, J-160 E Cust, GIBSON 12 STR. FLATTOPS, ELECTRO-ACOUSTIC, LES PAUL Recording, LES PAUL Custom, LES PAUL De Luxe, GIBSON SOLID, MSA PEDAL STEEL, JUMBO FLATTOPS, YAMAHA-FOLK, JUMBO FLATTOPS, CLASSIC, and CLASSIC Guitars.



STANDS: Hi-Hat 35.84, Snare 24.07. CONGA / BONGO: Tumbador 101.85, Twin Congas 162.04, Quinto 91.67, Pedal 12.73, Bongos 53.81. ZILDJIAN CYMB.: 10" Crash 14.35, 12" Crash 19.21, 13" Hi-Hat 21.75, 14" Hi-Hat 25.89, 15" 28.24, 16" Hi-Hat 30.23, 17" 31.75, 18" 36.94, 19" 41.56, 20" 46.25, 22" 55.46. TOSCO CYMB.: 14" Hi-Hat 17.55, 16" Crash 21.25, 16" Crash/Ride 21.25, 18" Crash/Ride 27.13, 20" Crash/Ride 33.84. IZMAR CYMB.: 13" 46.25, 14" 15.27, 15" 17.74, 16" 17.59, 18" 22.88, 20" 28.28. SUMMERFIELD CYMBALS: C34 14" 8.32, O40 16" 12.95, O45 18" 15.73, O50 20" 18.44, 155 22" 26.84. DRUM MATE STARTERS KIT: 4080 59.44, 4085 92.59, 4086 106.48. TAM/STAR DRUMS: T05 DX o/Its 324.07, 8905 Tama o/It. 347.22, 8705 Tama o/It. 314.81, 7925 Tama o/It. 254.63. SNARE: 8588 Metal shell 62.50, 8258 Metal shell 40.28, 8256 Metal shell 42.13, 3385 37.78, 3356 Acrylic 42.13. GRECO GUITARS: 2212 12" T.T. 20.83, 2216 16" T.T. 35.11, 2213 13" T.T. 23.14, 2222 22" Bs. 55.55, 8822 S 22" Bs. 83.33. 8620 S 20" Bs. 74.07, 8612 S 12" T.T. 33.79, 8613 S 13" T.T. 35.84, 8616 S 16" T.T. 55.55, 8822 22" Bs. 74.07, 8620 20" Bs. 64.81, 8612 12" T.T. 33.79, 8613 13" T.T. 32.40, 8616 16" T.T. 46.29, 8614 14" T.T. 42.59. 3014 Met.Shl.Par. 31.01. W.M.I. TAMBOURINES: TH.61 1.81, TH.102 2.73, TH.104 3.47, TS.106 4.58. BONGO DRUMS: B.65 4.12. DRUM KIT: D-3 74.03.

CBS/ARBITER: FENDER Jxmstr. (500) 343.00, Jaguar (500) 372.00, Strat/Trem. 294.59, Strat. 254.82, T/str/d./[522] 310.00, T/str/Trem. 357.00, T/str/Cust. 213.00, Cust. 293.00, T/str. 213.37, T/str/Trem. 284.74, Bronco 139.00, M/mstr. 128.00, Mustang 198.00. FENDER SEMI-SOLIDS: T/str. 315.00, T/str. 349.00. FENDER F CLASSICS: FC10 27.34, FC10 30.14, FC20 36.91, FC30 47.31, FC40 53.85. STEEL STRUNG: F15 35.13, F25 41.19, F35 45.25, F45 46.19, F55 12 56.17, F65 56.34, F75 72.00, F85 95.50, F95 122.39. BASS: Precision 231.00, Precision n/rk. 246.00, Precision f/Is 231.00, Jazz bs 277.00, T/str.bs. 244.00, Mustang 218.00, Bs.VI 343.00, M/mstr. 111.00. ARBITER GUITARS: Cls. C10 21.00, Cls. C15 32.00, Cls. C20 44.92, Jbo J110 29.00, Jbo J115 36.50, Jbo.XII J120 39.50, Jbo.J125 42.00, Jbo.J130 73.00, Elec.E250 22.50, 1 p/u sld. Elec.E255 25.50, 2 p/u sld. Elec.E260 34.50, sld.bs. GRECO GUITARS: Elec.E210 LP Mod. S/B 75.00, Elec.E215 LP Mod. S/B Split/p/u 84.00, Elec.E220 FSG Mod. 104.00, FIV Mod. 97.00, Elec.E230 SG 3 Gld. o/u wrh.trem. 87.00, Elec.E245/case 90.00, Elec.E210/case 75.00, Elec.E215/case 84.00. CLEARSTONE: MELODY 1200 34.65, 1250 43.71, 500 30.51, 625 38.09, 325 13.00, 450 21.81, 480 29.94, 350 15.33, 600 34.47, 1300 39.38. MIAMI: FT1 25.35, FT2 29.83, FT1 Bs. 32.69.

688 E.Gt.Wst.Elec 72.66, 2374 sem-Ac.Iid 87.04, 2371 sem-Ac.bs 75.46, 2370 sem-Ac.Iid 79.17, 1752/45/mstr.bs. 39.35, 1755 S/mstr.II 48.15, 1912 Twncst.bs 47.22, 1912 Twncstr. 45.37, 2385 Cpr.T./bvy.bs. 107.41, 2384 Cpr.d./h 109.26, 2386 L I/h 127.31, 2386 Memphis ctm d/1 98.15, 2376 Dixie I./bs.bs. 118.98, 2375 N Rock/mn 97.22, Natural 69.81, 2375 Ls'bst./I/h 89.81, 2375 W Rock/mn 90.74, White 2375 Rock/mn 86.57, 2375 Rock/mn 81.02, R.wf.bd. 81.02, 2386 FLB. F/ies Bass 75.46, 2366 BMkmm. 75.46, 2385 B Dixie bs. 76.85, 2385 Dmxstr. 58.33, 2388 Cpr. F/bt 64.81, 2353 LDX Cpr. 41.67, l/bs.blk. 54.30, 2353 Cpr.l./bs. 58.33, 2352 C tom. 73.61, 2352 d/lk. 83.33, 2352 MC/Pr.d/1 55.48, 2352 Cliper. 50.00, 2354 W/stk.l/bs 80.09, 2354 BW/stk.bs 70.83, 2394 W/stk.nat. 77.31, 2347 W/stk.jn. 96.30, 2338 W/stk.std. 94.00, 2383 W/stk.cim 110.19, 2382 W/stk.d/1 86.11, 2377 W/slk.pro. 81.94, 2354 SL I/h 74.54, 2354 SW/stk.std. 65.28, 2354 W/stk. 67.78, 2350 B Mem.bs. 72.69, 2405 Mem.orig.d/1 123.61, 2351 N Mem.Nat. 77.31, 2351 M Mem.orig. 86.11, 2351 DX Mem.d/1 91.67, 2351 Mem.d/1 80.09, 2350 L Mem.std. l/h 77.31, Snd. Bst. 76.85, 2350 Mem.std. 71.76, 2350 G Mem. Custom 77.31, 2357 Mr. Strad. 47.22, Vio bs 47.22, 2355 Bg.Jhn. S.Ac.Mpl. 112.96, 2355 Bg.Jhn. SAc.S bst. 101.85. DAVOLI: Les Paul 6 str. mahog.gld 90.00, Sup. Les Paul mahog.gld. 101.50, S.G.Type 6 str. Walnut.gld. 85.00, Les Paul Bs. mahog.gld. 90.00, G.2.Bs.Wal.gld. 90.00, Jazz bs. Nat.Chr. 95.00. FLETCHER, COPPOCK & NEWMAN: COLUMBUS JUMBO: N.78 Jumbo 27.20, N.197 C&W Jumbo 33.29. COLUMBUS ELECT.: N.35 Semi-Acou 39.35, N.113 S/Body 36.99, N.85 S/Body 44.40, N.85 Sunburst 44.40, N.54 S/Body 43.47, N.65 S/Body Bass 45.32, N.77 S/Body Bass 45.32, N.82 Bass 46.02. KIMBARA CLASS.: N.105 22.45, N.106 24.54.

ACOUSTIC: 727 flk. 2.37, P727 C & W 2.37, P12 12 str. 3.89. CLASSIC: 78 Grnd Nyl. 1.86. HOHNER: ECONOMY 500 8.89. MUSIMA: 1612 N 13.56, 1612 S 13.24. RESONATA: 730 class 16.43, 731 class. 18.15, 732 class. 22.73. MORIDAIRA: 841 class. 20.83, 842 class. 24.86, 843 class. 27.22, 844 class. 30.26, 845 class. 50.46, 847 Jbo. 41.67, 848 Jbo.d/1 54.30, 849 12 str.jbo 53.61, 950 73.61, 865/F3D1 Fk. 35.42, 856/F3D3 Fk. 54.83, 861/AW613 86.81, 862/AWE1030 Jbo. 46.94. HONDA: H130 24.95, H150 24.95, H185 27.19, H160 12 str.jbo. 31.94, H175 Jbo. 27.41, H180 Jbo.D/L 29.35, H200 Folk 29.44, H210 Jbo. 31.53, H220 12 str.jbo. 35.74, H305 Class 14.12, H310 Class. 21.38, H320 Class. 27.92. ELECTRIC: AT2T 27.92, FB 1W Bass 60.74, FT 2T 30.05, JB 2 Bass 54.83, JB 200 Bass 74.50, LB 200 Bass 48.38, LE 200 74.49, LG 23R 79.77, LP 200 G 72.36, LS 200 V 54.77, LS 200 S 54.77, MB 200 Bass 33.61, ME 20 TS 39.58, PM 302 41.25, PM 302 Bass 42.68, SA 200 40.37, SE 2 B Bass 36.81, SE 2 S 26.81, SG 2 S 37.36, SG 10 B Bass 43.10, SG 22 37.45, SG 220 V 54.03, SG 2000 54.03, SP 1 25.74, ST 30 51.76, ST 200 64.19, TF 200 N 52.31. CONCERTER: SK 614 N 14.77, GK 200 20.28, WK 599 SH 30.37, WK 599 F 30.58, FK 599 27.15, FK 289 26.50. JOHN HORNBY SKEWES: PALMA ACOUSTICS: M5309 7.26, S00 9.13, 300 11.07, S1612 10.88, ST1612 10.88, S80 14.80.

IVOR MAIRANTS: MARTIN: D-18 208.33, D-20 291.67, D-35 300.93, D12-28 300.93, 016-NY 180.55, D-41 + case 609.26, CO-21 + case 305.56. AROSTEGUI: No. 2 14.81, No. 4 16.67, No. 6 18.52. OSCARTELLER: 749 69.44, 77 97.22, 8 P 166.67. CALABERT: OS 18.52, A 20.83, B 24.07, C 30.56, E 69.44, Palosanto + case 92.59. MITSUMA: JG 101 18.52, JW-304/12 37.04, JW-305/12 41.67, JG-102 Cls. 23.15, JG-103 Cls. 27.78, JC-42 Cls. 32.41, JC-43 Cls. 40.74, JC-45 - case 92.69, JC-46 - case 111.11, O3 h/md concert 74.77, JC-46 Cls. 111.11, JF-201 17.59, JF-202 20.83, JF-203 27.78, JW-303 27.78. RAMIREZ: C-116 S Cls. 64.81, C-133 S Cls. 15.74. SAKURA: LS-2 s/b + case 46.37, LS-2 b + case 50.00, LS-2 GD5(B) 54.83, L-339 P 39.35, F-340 32.41, MD 25 32.41. CLASSICAL: C-132 S 41.67, C-136 S 17.11, Ramirez cpy. 64.81, TG-30 24.07, TG-10 18.52, TG-20 21.30, C-113 A 15.74, C-113 B 15.74. B.L.PAGE: MICRO-FRETS: Thndmstr. 244.44, Husky 195.56, Stage II 171.11, Sgr.Bs. 171.11, B.G. 6 s bs. 183.33, Huntington 305.56, Spacetone 256.67, Swng.Cust. 226.11, Stage II 207.78, Swng 195.56, Sgr.Cust 195.56, Sgr. 195.56, Calibra I 171.11, Calibra 162.78. ROSE-MORRIS: ELEC GTRS: Shaft.Ned Callan Cody 140.88, Shaft.NedCallan Cody bs. 145.46, Shaft.Ned Callan Hombre 106.94, Shaft. Ned Callan Cody bs. 116.20, Shaftesbury 72.72.

EC 20 cls. 41.20, FT 130 E flk. 39.77, FT 135 E flk. 67.55, EA 260 E bs. 87.36, EA 250 E Elec. 83.25, ET 278 Elec. 78.70, ET 280 E Elec. 64.77, ET 275 Elec 78.70, ET 285 bs. 89.96, ET 270 E Elec. 64.77, FT 335 flk. 64.77, FT 350 flk. 78.66, FT 365 flk. 87.96, FT 650 flk. 106.46, FT 565 12/s jbo. 115.74, FT 160 N 12/s flk. 62.03, FT 670 BL flk. 97.22, EC 24 cls. 56.94, EB 88 Bjo. o/1 115.74, EM 50 Mando 50.93. EROS: 9578 Elec. 61.11, 9579 Elec. 42.73, 9585 bs. 66.67, 9586 bs. 61.11, 9353 K 27.77, 9353 E flk./elec. 32.41, 9356 12/s flk. 34.72, 9356 12/s flk./elec. 40.74, 9350 flk. 25.93, 9351 flk. 32.36, 9587 6/selec 61.11. EROSMK II SOLIDS: 8711 flk/s 46.25, 9712 8/s 46.25, 9713 bs. 46.25. GEISHA: 9644 Cls. 18.43, 9645 Cls. 10.18, 9646 Cls. 11.87. KISO SUZUKI: 9502 Cls. 29.21, 9503 Cls. 32.36, 9504 Cls. 34.72, 9505 Cls. 38.43, 9563 h/md.Cls. 63.84, 9581 flk. 36.81, 9582 flk. 33.80, 9553 12/s flk. 43.19, 9607 flk. 41.67. ROSETTI: Raver Elec. 30.23, Raver bs. 23.15. TATRA: 9198 Cls. 16.66, 9225 Cls. 20.36, Hi-Spt.Nyl. 11.81, Hi-Spt.Stl. 10.88. LANDOLA: 9700/23 Cls. 13.84, 9701/71 flk. 31.76, 9702/66 Jbo. 28.84, 9703/72 Lg. Jbo 37.73, 9704/73 12/s 41.34. KOHNO H/M.D.CONC.: MK 10 347.22, MK 15 500.00, MK 20 666.66, MK 30 879.62. IBANEZ WSTRN. & FLK.: 60 35.47, 610 41.66, 65 40.74, 615 46.29, 615/12 50.92, 620 50.92, 647 50.92, 847/12 55.56, LH 6 15/12 55.09, LN 6 20 53.24, LH 6 15 48.61, 755 50.92, 755/12 65.65, 355/12 35.84, 969 41.86, LH 6 47 55.09, LH 6 47/12 59.25. GIBSON SOLID BASS: Ripper bs. 249.00, Grabber bs. 175.93, EB-3 258.33, Ripper Fretless 213.75, Flying V o/L lid. Edit. 387.08. GIBSON JUMBO FLATTOPS: J-200 Artist 450.46, Dove Cust. 343.52, Gospel 304.63, H/Ige. Cust. 304.63, H/brd.Cust. 270.37, Bl/Rdg.Cust. 249.07. 18-30: HAND-MADE CLASSICS: GC-3 100.00, GC-6 144.53, GC-10 196.36. SAXON CLASSICS: 810 18.05, 813 27.54, 814 30.46, 815 38.66, 816 44.44. FOLK: 812 26.00, 817 32.40, 818 36.57. JUMBO FLATTOPS: 819 35.18, 820 36.94, 821 37.87, 822 12 str. 39.35, 823 36.78, 824 53.70, 825 58.10. SOLID: 830 Elec. 60.92, 831 Elec. 50.92. SIMMS-WATTS: DYNELECTRON: 273 119.35, 274 Bs. 119.35, 285 Bs. l/s. 119.35. SUMMERFIELD: IBANEZ & CIMAR CLAS.: 304 23.14, 300 25.46, 361 30.09, 362 32.87, 363 35.64, 364 38.42, 370 43.94, 375 43.94, TAK-1 43.94, TAK-2 41.66. R.TAMURA H/MD.COND: P35 111.11, P45 138.88, P45 138.88. R.MATSOUKA CLAS.: M20 81.01, M25 89.35, M30 106.48, M40 129.62, M50 152.77. M.TAMURA H/MD.CONC.: P700 194.44, P800 231.48, 10 P120J 347.22. IBANEZ WSTRN. & FLK.: 60 35.47, 610 41.66, 65 40.74, 615 46.29, 615/12 50.92, 620 50.92, 647 50.92, 847/12 55.56, LH 6 15/12 55.09, LN 6 20 53.24, LH 6 15 48.61, 755 50.92, 755/12 65.65, 355/12 35.84, 969 41.86, LH 6 47 55.09, LH 6 47/12 59.25. 200-290: R.MATSOUKA WSTRN.: D/NOUGHT RANGE: D 40 120.37, D 50 138.88, D 60 162.03, D 80 203.70, D 80 203.70.

ALL PRICES ARE WITHOUT V.A.T.

LEVIN GUITARS	
LG 17	83.33
LG 19	101.85
WR 34	134.25
W 36	120.37
W 32	171.29
W 12-36	134.25
MACAFERRI REPLICA	
Mac 1	92.59
Mac 2 Special	97.22
Mac 2	92.59
Mac 3	111.11
STUDENT	
APG 701	16.65
C 114	18.51
EG 1	8.79
KP 1	9.12

HAWAIIAN	
2391	74.07
2390	24.53

CSL/IBANEZ ELECTRIC	
2350	98.61
2350 DX	127.31
FG 350 S	98.61
2351 DX	118.05
2351 DXCS	115.74
2341	111.11
2341 DX	140.74
2350 W	106.48
2451	138.88
2452 B	138.88
2452	104.16
2343	115.74
2337 DX	122.68
2344	125.92
2402	195.18
2402 DX	203.70
2404	203.70
2364	111.11
2346	138.88
2372	231.48
2372 DX	162.03
2373	138.88
2380	162.03
2381	171.29
2389 DX	180.55
2387	134.25
2387 B	138.88
2388 B/S	148.14
2388 B/DK	162.03
2388 B/DK Ster	180.55
2386	138.88
LH 2388 B/S	162.03
2613	108.48
2616 CS	144.44
2368 F	78.70
2453	148.14
2455	180.46
2457 Ster	164.81
2355	120.37
2355 M	134.25
2355 DX	148.14
2352 C	98.88
2352 DX	100.00
2369 B/W	188.57
LH 2352 C	98.29
LH 2352 DX	106.94
LH 2350	104.16
LH FG 360 S	104.16
LH 2351 DX	125.00
LH 2372	148.14
LH 2380	188.18
2348 B	152.77
2348 B	152.03
2671 PRC	220.32
2671 Twn.	555.56

SUMBRO ELECT.	
GE 1	27.30
LP 2 G	53.70
LRGC	57.40
LS 200	62.98
LPSGC	67.40
JB 200	72.88
SG 3	53.70
SG 5 M	48.14
SG 42 M	53.70

TOP GEAR	
OPUS (By Harmony)	
HO V Dreadnought	139.50
HO X Jumbo	139.50
HO XX Ex Lge Jumbo	1755.00

LITTLE BUDDY	
PEDAL STEEL	
4141 Jun.	162.75
4142	217.00
4140 Prof Twn. Neck	480.50
HONDO	
H-130 Grand Concert Folk	24.94
H-155 D/night	27.11
H-210 D/night D/ix	31.53
H-310 Concert Classic	21.38
H-320 D/ix D/night Classic	27.89
H-175 D/ix D/night S/burst	27.42
H-180 D/ix D/night H/bird	29.36
CG-150 Student Conc. Classic	14.68
FG-5500 Student Folk	16.11
FG-8500 Student D/night	17.04

RICKENBACKER SOLID BODY	
P/u	208.00
Orig. 2 P/u	224.00
New Model. 2P/u	184.00
As above/12str.	240.00
As above/convert. 6/12 str.	280.00
As in Bass series	
D/ix. Ster. 2P/u	280.00
THIN SEMI-ACOUSTIC	
3 P/u, ShortScale	280.00
2 P/u, Dble. Cutaway	280.00
2 P/u, Dble. Cutaway	360.00
As above/12str.	
As above/ D/ix. ster.	
1 P/u, Dble.	336.00
As above/ 12str.	384.00
3 P/u. Ster.	248.00
D/ix. Dble.	380.00

BASS	
1 P/u. S/body	280.00
2 P/u. D/ix. Ster.	
S/body	328.00
As above, Lft-Hnd.	384.00
As above, Right-Hnd.	
D/ix. Hollow Body	448.00
2 P/u	378.00
TWIN NECK	
Thin Body, S-Accus.	
(Incorp. D/ix. Ster.)	
2 P/u. Dble.	784.00
S/body, Incorp. 2P/u.	
D/ix. Ster)	672.00

GUILD	
ACOUSTIC	
T.V.	388.00
Bluegrass Special	312.00
Bluegrass Jubilee, maple	298.00
Jumbo 17	288.00
3/4 Size 15	280.00
Arched back	240.00
Bluegrass Jubilee mahog.	240.00
Bluegrass	208.00
Bluegrass sunburst	200.00
Bluegrass, mahog.	178.00
Navarre, R/wd	
17" Jmb.	458.00
Navarre, Mpl.	
17" Jmb.	368.00
Navarre, Mpl S/burst.	
Navarre, Mahog.	
17" Jmb	312.00
Bluegrass 15 1/2 Fik.	272.00
Bluegrass, 16" Fik.	272.00
Aragon, 15 1/2 Fik. nat.	176.00
S/burst	
Troubadour.	136.00
13 1/2 Fik. nat.	
Troubadour. 13 1/2 Fik S/burst	136.00
Custom, R/wd.	
17" Jmb	136.00

Custom, Flamed mpt.	
17" Jmb.	480.00
Ex. lge. Mahog.	
17" Jmb	424.00
Mahog. 16" Fik.	280.00
Standard, 15 1/2" Fik.	208.00
R/wd. 16"	336.00
Mahog. 16"	280.00

acstc	
ELECTRIC Artist Award	640.00
S/acstc. Dble. P/u	504.00
S/acstc. Dble. P/u.	336.00
S/acstc. Dble. P/u.	320.00
Starfire 6	480.00
Starfire 4	296.00
Starfire 2	240.00
Starfire 2 Bass	280.00
Starfire 1 Bass	S.O.D.
D/ix. Solid Dble P/u.	240.00
D/ix. Solid Dble. P/u. Ster.	272.00
Standard Solid Dble. P/u.	208.00
Standard Solid Dble. P/u. Ster.	224.00
Stan. Curved Ster.	
Solid 2P/u.	256.00
Sol. Dble. P/u.	168.00
1 C/way	284.00
As above, gold plated	S.O.D.
Sol. Dble. P/u	
1 C/way Bass	266.00
As above, ster.	288.00
Single P/u Solid	
C/way Bass	184.00
As above, Long scale.	184.00
Dble. P/u. Sol	224.00
2 C/way Bass	224.00
As above, long scale	224.00
As above, ster.	248.00
As above, Fretless	224.00
Curved stereo 2 P/u Sol. Bass	272.00

W.M.I.	
ACOUSTIC STR.	
K 75	7.36
G. 101	9.21
K. 200	11.06
K. 220	72.91
K. 116	11.06
K. 320	14.30
K. 145	14.30
K. 155	15.69
K. 440	18.47
KD. 28	25.46
K. 520	27.73
K. 520-12	31.94
K. 530	27.73
KDG. 70	31.94
KDG. 88	81.00
KDG. 812	84.78
NYLON STRINGS	
KC 265	11.06
K. 112	11.06
KC. 333	14.76
KC. 366	16.62
KDG. 60	43.98
ELECTRIC GTRS.	
KET 220	22.69
KE 120	17.12
KZ 210	21.75
ZB GUITARS(UK)	
ZB	
PEDAL STEEL Student S 10	324.95
S 10 Pro.	812.99
S 11 Pro.	664.29
S 10/D 10	661.99
S 11/D 11	708.39
D 10 Pro	822.9
D 10/11 Pro.	869.98
D 11 Pro.	917.99

EMMONS	
Pro D 10	684.25
Pro D 12	771.54
Pro S 10	464.34
Pro S 12	507.22
GS 10 Student	283.68
Lap Steel	120.70
SHO-BUD	
6164 Pro 111	953.00
6155 Pro. 11	855.00
6153 Pro.	853.00
6160 Pro 111	860.00
8150 L.O.G.	860.00
6148 Pro.	562.00
6140 Pro.	562.00
6139 Pro.	465.00
6138 K.	382.50
6138	354.00
6152	277.00

Microphones	
A.K.G.	
CON. MIKES	
C 451 E	160.00
C 451 D	57.00
C 451 E/B	57.00
C 451 C/B	72.00
C 451 E or C	72.00
C 451 EB or CB	48.19
DYNAMIC MIKES	
DST 11/41	25.00
DST 11/43	29.66
D 12	43.00
D 14 S	14.00
D 58 C	18.00
D 58 E	20.00
D 90 E	12.00
D 90 HL	14.00
D 109	19.00
D 110	34.00
D 160 C	31.00
D 160 E	31.00
D 190 C	26.00
D 190 CS	28.00
D 190 E	28.00
D 180 ES	30.00
D 200 C	37.00
K. 200	39.00
D 202 ES	47.00
D 402 CS	47.00
D 402 L	13.00
D 510	18.00
D 558	24.00
D 590	28.00
D 591	21.98
D 598	26.00
D 707 C	22.00
D 707 E	24.00
D 900 C	54.00
D 900 E	54.00
D 1200 C	37.00
D 1200 E	39.00
D 2000 E	40.00
D 2000 C	40.00

CALREC	
CM 450 D	35.79
CM 450 C	39.39
CM 450 PD	39.70
CM 450 D	42.29
CM 620 C	42.00
CM 620 C	45.70
CM 652 D	42.00
CM 652 C	45.70
CM 654 D	42.00
CM 624 C	45.70
CM 655 D	46.07
CM 655 C	48.70
CM 656 C	46.00
CM 656 C	48.81
DAVOLI	
MICROPHONES	
K 700	36.00
K 695	35.00
ELECTRO VOICE	
205 C	19.09
206 CRA	19.09
600 EL	15.92
600 EH	15.92
602 FL	24.50
602 FH	24.50
602 T	24.00
602 TR	35.00
602 TRA	24.00
603 T	52.50
603 TRA	52.50
607 L	21.50
607 H	21.50
619 L	25.50
619 H	25.50
620 L	26.00
620 H	26.00
625 HS	56.00
626 A	21.79
627 BL	25.50
627 BH	25.50
631 AL	25.50
631 AH	25.50
634 AL	14.60
634 AH	14.60
635 A	32.60
636	33.79
644	54.00
647 L	34.00
649 B	42.60
647 H	34.00
651	54.00
651	20.11
657 v	26.11
M 64 N	16.95

STUDIO MIKES	
D 202 E1	50.00
D 224 C	67.00
D 224 E	67.00

BEYER DYNAMIC	
MICROPHONES DOUBLE RIBBON	
M 160 N	96.07
M 160 (C)	98.37

MOVING COIL	
M 55 L.M.	13.58
M 55 (K)	14.20
M 57	20.11
M 57 v	26.11
M 64 N	16.95

M 64 S.H	26.78
M 67 H	44.70
M 67 (C)	48.24
M 68	28.45
M 69 N	33.85
M 69 (C)	36.14
M 69 S.M.	36.14
M 69 (NC)2	38.44
M 81 LM	17.55
M 81 (K)	18.17
M 86 N	81.04
M 88 (C)	83.33
M 101 N	44.70
M 101 (C)	48.24
M 111 N	56.82
M 201 N	47.62
M 201 (C)	48.09
M 410 N (T)	24.22
M 410 (N)	25.69
M 410 (N)S	25.69
M 410 (N)S2	25.69
M 410 (N)CS	27.14
M 411 (N)T	26.32
M 411 (N)TS	27.78
M 411 (N)TS2	27.78
M 412 (N)CS	28.24
M 412 (N)TS	28.67

PROF. ENT. SERIES	
B 5 15 SA	19.79
B 5 45	39.60
B 5 48	46.80
B 5 5 SW	40.20
B 5 65	44.40
B 5 88 SA	27.60
PE 5 0 SP	54.94
PE 5 4 D	42.00
PE 5 6 D	46.80
PE 5 66	66.00
PE 5 85 V	34.80
Unisphere	60.50
Unisphere 1	41.56
Unisphere A	32.39
Unisphere B	27.50
Unidyne III	36.67
Unidyne III	38.50
Unidyne IV	42.78
Unidyne B	20.17

### SIMMS-WATTS

LM 300 Dyn.	16.57
SW 5000 Dyn.	18.14
SE 5000 L Dyn.	18.14

### SOUNDOUT

MICROPHONES	
AKG D 190 cs.	28.00
AKG D 707	22.00
LM 300	18.00

### TOP GEAR

PEAVEY	
Low 1 mp.	33.00
High 1 mp.	33.00

### VITAVOX

B 50 25 ohms	19.76
25 ohms par.	19.76
B 54	24.39
B 60 25 ohms	23.00
B 64	27.77
B 80 25 ohms w/tight	43.14

### VOX

H.I. Microphone	27.89
-----------------	-------

### W.M.I.

MICROPHONES	
KTM-1	7.15
KTM-2	10.13
KTM-3	9.21
KTM-4	11.99
KTM-44	18.47
KSH-22	8.10

## Disco Equipment

### DISCO SUPPLIES

CONSOLES	
Studio 100 S	249.00
Mini 100 S	199.00

SPKR SYSTEMS	
2-12 120 W2x12	87.00

### DAVOLI

Disco Jnr. 50w	154.00
----------------	--------

### D.J. ELECTRONICS

100 Mk II	63.00
Amp	93.37
Mixer Mk V	60.00
Disco-Vox	84.00
Stereo Mixer	109.00
Powermaster 100	73.00
Powermaster 150	88.00
Powermaster 200	120.00
Powermaster 300	150.00

SPEAKERS	
Prince	51.00
Consort	81.00
Sovereign	120.00
Royale	240.00
Mini	129.00
Mini-Vox	165.00
Stan.	200.00
Stan.	235.00
Stan.Vox	242.59
Sina.Vox	285.00
Disco-Vox	340.00
Disco-Vox	375.00
Sup-Vox	400.00
Sup-Vox	435.00
Ster-Mini	230.00
Disco.Stand	18.57

### F.A.L.

Disco pre-amp	18.40
Disco	78.75
Power Disco	117.30

### L.S.E.

SOUND UNITS	
STAK S.L.	72.35
STAK 1	87.00
STAK 5	115.00
RAK S.L.	65.00
RAK 1	79.50
RAK 5	102.83
RAK Cab.	102.83
Sl. Pwr. Amp. 100w	
Chassis	49.00
Disco Mix. 145	55.00
Disco Mix. 145/S	60.00
Disco Unit	132.00
Disco Unit/100w	
Amp.	176.00
Disco Unit D/lx.	
(Dblie. T)	180.00
Mix. 8000/M	370.00
Mix. 8000/MP	450.00

### ORANGE

D.J. DISCO UNITS	
120 custom	258.86
120 LT cst.	
Is./tbl.	228.58
120 DL cst.d/lx.	322.50

### PA:CE

Dico Console	180.00
--------------	--------

### ROSE-MORRIS

DISCO UNITS	
1993 2-Dk.	182.53
1994 100-w. Trans.	
Slave Amp.	90.72
1995 50-w. 1x12"	
Spkr. Cab.	62.92

### S.A.I.

DISCO UNITS	
DSI Stereo	247.50
DMIVS Disco IVs	
Prof.	175.00
DIVS Disco IVs	162.00
DIV Disco IV	144.00

### DAVE SIMMS PRODUCTS

AUGUST UNITS	
MD 2	82.15
MD 1	113.90
MD 3	154.20
SD 5	224.75
MD 3/100	259.60
SD 5/200	364.25

### SIMMS-WATTS

Disc-Dex MkIIIa	212.03
Disc-Dex MkIII	143.51
Mono	
Disc-Dex. Prof.	
Mono	208.33

### SOUNDOUT

DISCO CONT. MODS	
Srs.IIIa mon.	234.00
Srs.III mon. 100w	294.00
Srs. IIIa ster.	291.00
Srs. IVa mon.	195.00
Srs. IV mon. 100w	249.00
Srs. Va mon.	195.00
Srs. V mon. 100w	249.00
Srs. III ster. 100w x 100w	396.00

## Stop Press:

### TYAS

AMPLIFICATION	
L.C. 60 Slave	60.00
L.C. 60 tc	75.00
P.S. 125 Slave	95.00
T 125	130.00

MIXERS & DISCO UNITS	
MMX-8	291.00
MMX-8B	354.00
Minimix disco	108.00
Minimix disco st.	135.00
Minimix chassis	45.00
Minimix chas. st.	66.00

SPEAKERS	
Single 12"	30.00
Twin 12" Disco pr	

SPEAKERS	
Single 12"	30.00
Twin 12" disco pr	108.00
Twin 12" PA pr	108.00
Single 15" bs bin	120.00
Twin Horn box	85.00

# Studio Guide

ACORN RECORDS LTD.  
Church Rd., Stonesfield, Oxford.  
099 389 444  
16T 4T 2T £10 p/h Cap 7 tf D

BASING STREET STUDIOS (ISLAND)  
8-10 Basing St., London, W11.  
01 229 1229  
Studio 1 24T £35 p/h Cap 80  
Studio 2 24T £35 p/h Cap 20  
R-R-C-Cr-£10 p/h D OTC

BIRD SOUND STUDIOS  
Kings Lane, Nr. Stratford-Upon-Avon.  
078 985 705  
8T £7 p/h Cap 20 DC/ba R-R-C DBX

CBS RECORDING STUDIOS  
31-37 Whitfield St., London, W1.  
01 636 3434  
Studio 1 16T £38 p/h Cap 75  
Studio 2 16T £33 p/h Cap 25  
Studio 3 16T £32 p/h Cap 12  
DC R-R-C-Cr D

CHALK FARM STUDIO  
1a Belmont St., London, NW1.  
01 267 1542  
16T £20 p/h 8T £14 p/h Cap 10

COUNTDOWN SOUND STUDIOS  
104 High St., Manchester, M4 1HQ.  
061 832 3339  
8T £12 p/h Cap 15 R-R

DRUMBEAT RECORDING STUDIOS  
233 Melton Rd., Leicester.  
0533 62011  
8T £8 p/h 2T £6 p/h 8T £8 p/h  
Cap 25 DC/ba R-R-C-Cr

EMI RECORDING STUDIOS  
3 Abbey Rd., London, NW8.  
01 286 1161  
Studio 1 16T £39 p/h Cap 100  
Studio 2 16T £38 p/h Cap 50  
Studio 3 24T £39 p/h Cap 30  
DC R-R D Q

ESCAPE STUDIOS  
Island Farm, Edgerton, Kent.  
023 376 259  
16T £350 p/d Cap 10 D Ac

FREERANGE STUDIOS  
22 Tavistock St., London, WC2.  
01 405 1210  
Studio 1 8T £8.50 p/h Cap 40  
Studio 2 4T £5.65 p/h Cap 6

INDIGO SOUND STUDIOS  
72 Gartside St., Manchester, M3 3EL  
061 834 7001  
Studio 1 16T £19 p/h Cap 12  
Studio 2 8T £16 p/h Cap 25  
DC/ba R-R-C-Cr CP

ITN HOUSE  
48 Wells St., London, W1P 4DE  
01 637 1942  
16mm 4 35 mm fcf £22 p/h Vs  
R-R-C-Cr-16 mm 435 mm

DICK JAMES MUSIC LTD  
71-75 New Oxford St., London, WC1A 1DP  
01 836 4864  
Studio 1 16T £35 p/h Cap 12  
Studio 2 24T £28 p/h Cap 6  
R-R-C-Cr d-t D

R.G. JONES RECORDING STUDIOS  
Beulah Rd., Wimbledon, SW19 3SB  
01 540 4441  
24T £tba 16T £25 p/h Cap 40 R-R-C D

KINGSWAY RECORDERS LTD.  
129 Kingsway, London, WC2B 6NH  
01 242 7245  
24T £38 p/h 16T £34 p/h Cap 35 DC/ba D

MAGRITTE  
15 Holloway Lane, Harmondsworth,  
West Drayton.  
897 9670  
16T £16 p/h 8T £8 p/h DC/ba tf/ba

MAJESTIC RECORDING STUDIO LTD.  
146 Clapham High St., London, SW4  
01 622 1228/9  
24T £24 p/h Cap 50 R-R DBX

MANOR STUDIO  
Sipton Manor, Sipton-On-Cherwell,  
Kiddlington, Oxford.  
08675 2128  
16T £425 p/d Cap 20 d ac

MAYFAIR SOUND  
64 South Moulton St., London, W1.  
01 499 7173/5  
16T £28 p/h Cap 15 CP D Ka

MORTONSOUND  
13-15 Carlisle Sq., Newcastle-Upon-Tyne.  
4T £6 p/h Cap 10 Dc R-R-C  
0632 26902

MUSHROOM STUDIOS  
18 West Mall, Clifton, Bristol.  
0272 35994  
8T £10.50 p/h Cap 17 R-R-C DBX

NEST STUDIOS  
78 Bristol St., Birmingham, B5 7AH.  
021 622 3417  
8T £10 p/h Cap 15 R-R-C-Cr-D Dc Ka

RADIO WORCESTER PRODUCTIONS.  
Worcester Music Centre, Wessell & Dorrell,  
High St., Worcs.  
0905 20279  
8T £8 p/h Cap 12 R-R-C D

REGENT SOUND STUDIOS.  
4 Denmark St., London, WC2.  
01 836 6769  
8T £12 p/h Cap 20 R-R OTC

RIVERSIDE RECORDINGS  
78 Church Path, Fletcher Rd., Chiswick, W4.  
01 904 3142  
8T from £10 p/h Cap 10 R-R-C-Cr  
CP Ka D

ROCKFIELD STUDIOS  
Amberley Court, Rockfield Rd., Monmouth.  
0600 2449  
Studio 1 24T £24 p/h Cap 35  
Studio 2 16T £20 p/h Cap 25  
R-R-C D Ac (min. 10 Hrs.)

SARM STUDIOS  
Osborn House, 9-13 Osborn St., London, E1.  
01 247 1331  
24T £35 p/h 16T £30 p/h 8T £25 p/h 2T £25 p/h  
Cap 30 R-R-C-Cr D (No OTC)

SB STUDIOS  
59 Dean St., London, W1.  
01 439 1827  
16T £32 p/h Cap 25 R-R D

SOUND DEVELOPMENTS STUDIO  
Unit 11, Spencer Court, Chalcot Rd.,  
London, NW1.  
01 586 4488  
16T £22 p/h Cap 10 ¼"CP D  
R-R-C-Cr Ka

STRAWBERRY RECORDING  
STUDIO (UK) LTD  
3 Waterloo Rd., Stockport, Cheshire.  
061 480 9711  
16T £25 p/h Cap 35 tf D

THEATRE PROJECTS SERVICES  
SOUND STUDIOS  
11-13 Neals Yard, Monmouth St., London, WC2  
836 1168

M/S £12 p/h 4T £14 p/h 8T £16.50 p/h  
Cap 15 R-R-C OTC

WEST OF ENGLAND SOUND LTD.  
14 Swan St. Torquay, Devon.  
0803 50029  
Studio 1 8T £20 p/h Cap 30  
Studio 2 8T £20 p/h Cap 10  
R-R-C-Cr

## Hire Guide

BONZA P.A.  
27 Amery St., Alton, Hants.  
0420 83517/0483 65203  
500 watt P.A. 10CM T & C

EUROPA CONCERT SYSTEMS  
(Soundcraft)  
4th Floor, 5-8 Great Sutton St., EC1  
01 251 3631  
P.A. MT & C CTM

E.ZEE HIRE LTD.  
7-9 Market Rd., N7.  
01 609 0246  
ME P.A. T & C Rhr - £25 p/d

FARMYARD INSTRUMENT RENTALS  
25 Cambridge Rd., Hounslow, Middx.  
01 572 7644  
ME Small P.A.

GROUND CONTROL  
7a Wilby Mews, W11 3NP  
01 727 9170  
P.A. T & C

SCOPE EQUIPMENT HIRE LTD.  
54-56 Stanhope St., NW1.  
Of Hyde Park Fame.  
387 0300  
P.A. SL Sc T & C CTM

STANDISH LIGHT AND SOUND (HIRE CO).  
358 Preston Rd., Standish, Wigan.  
P.A. to 2,000 watts, Di SL T & C  
0257 421603

# Great Group



# Great Sound

Blackfoot Sue are now testing Thunderbolt, the new loudspeaker system developed specially by Vitavox for the international music group scene. Watch this spot for their report on these trials, sponsored exclusively by International Musician & Recording World.  
A great combination. Blackfoot Sue – Vitavox – International Musician.



**VITAVOX**

Limited

Westmoreland Road  
London NW9 9RJ

Telephone: 01-204 4234

Do you want to advertise in our Classified guide? Contact JAYNE CURTIS on 01-536 3007.

**BEDFORDSHIRE**  
**JERRY ALLEN ORGANS LTD.**  
 5-10 High St., South, Dunstable.  
 0642 603274  
 G.A.D.K.P. Di.  
**BOOGALOO BASEMENT**  
 17 Bridge St., Leighton Buzzard.  
 05253 66422  
 G.A.D. & W.S. Di. L.R.S.  
 Gibson Star Dealer  
**LUTON MUSIC CENTRE**  
 114 Lodge Rd., Luton.  
 0582 2686  
 G.A.D.K.B.W.S.  
**BIRMINGHAM**  
**ORUMLAND BIRMINGHAM LTD**  
 30 Navigation St., Birmingham B5  
 021 643 8541  
 D.P.  
**WOODROFFES**  
 119 John Bright St., Birmingham B1 1BE  
 021 643 6545  
 Spec. G.A.P.A. PA. Inst. CB. G  
**YAROLEYS**  
 Snow Hill, Birmingham  
 021 236 1441  
 G.A.D.B.W.S. Di. P.A.R.S.  
**BRISTOL**  
**WESTERN ORGAN STUDIOS**  
 11 Union St., Bristol.  
 0272 25897  
 G.A.D.K.M.H.R.S. Spec. USA Equip.  
**BUCKINGHAMSHIRE**  
**MARSHALL'S**  
 133/145-148 Queensway, Blechley.  
 Milton Keynes.  
 0908 75487  
 G.A.D.K.B.W.S. R.S.P.  
**SUN MUSIC**  
 116-117 Oxford Rd., High Wycombe.  
 0494 26846  
 G.A.D.  
**CHANNEL ISLES**  
**SOUND ENGINEERING LTD**  
 59 King St., Jersey.  
 0534 21735  
 G.A. Di. P.A.R.S.  
**CHEESHIRE**  
**CUSTOM AMPLIFICATION**  
 45 Nantwich Rd., Crewe.  
 0270 4779  
 G.A.D.K.S. Di. L.  
**THE ORGAN CENTRE**  
 (J.G. Flattly & C. R. Durrah)  
 26 Edleston Rd., Crewe  
 0270 55961  
 G.A.D.K.B.W.S. P.M.  
**JONES MUSIC STORE**  
 5 Queen Victoria St., Macclesfield.  
 0625 22677  
 G.A.D.K.B.W.S.  
**STROTHERS (Assoc. Rumbelows)**  
 Coronation Bldg., Watlasy Rd.,  
 Walsley.  
 051 638 3223/9831  
 G.A.D.K.W.S.  
**COVENTRY**  
**COVENTRY MUSIC CENTRE**  
 34 Whitlans St., Coventry  
 0203 5617  
 G.A.O.K.I.C. Di. K.  
**CUMBRIA**  
**P.P. DAVIS (CARLISLE) LTD.**  
 145-155, Bothergates, Carlisle.  
 0728 223849/28700  
 E.C. Di. Syn. G.A.D.K.B.W.S. Di. Ac.  
 P.A.R.S. ERS. EK. T.M.S.M.P.  
**NORTHERN SOUNDS**  
 61 Jane St., Workington CA14 3BW  
 Workington 4787  
 G.A.D.K.S. Di. R.S.T.O.  
**DERBYSHIRE**  
**HUDSONS OF CHESTERFIELD**  
 40 Burlington St., Chesterfield, Derbyshire.  
 0245 71117  
 G.A.D.K.B.W.S. Di. S.M.R.S.  
**DEVON**  
**MUSIC MARQUEE**  
 47 Notto St., Plymouth PL1 2AG  
 0752 63555  
 G.A.D.K. Di. L.R.S.  
**THE DAVID VANE MUSIC CENTRE**  
 28 Market St., Exmouth Devon  
 039 52 7248  
 A.O.D. Di. S/Hmg. H.S.M. ERS. Spec. G.T.G.K.  
**DURHAM**  
**CASSMUSIC**  
 28 South St., Eastbourne BN21 4UP  
 0773 21273  
 G.A.D.K.B.W.S. R.S. CB.  
**ESSEX**  
**CHRIS STEVENS MUSIC CENTRE LTD.**  
 33 North St., Romford, 0708 45542  
 G.A.D.K.B.W.S.  
**CHRIS STEVENS MUSIC CENTRE LTD.**  
 13 Queens Rd., Southend-on-Sea.  
 0702 45451  
 G.A.D.K.B.W.S.  
**GLOUCESTER**  
**RAY ELECTRICAL (CHELTENHAM) LTD.**  
 387 High St., Cheltenham  
 0242 22317  
 G.A.D.K.B.W.S. R.S. PA. Di. L.H.F.  
**ST. ALDATE MUSIC LTD.**  
 31 St. Aldate St., Gloucester  
 0452 24540  
 G.A.D.K. Di. R.S.  
**HAMPSHIRE**  
**HM2**  
 63 Bagules, Christchurch, Bournemouth.  
 02018 71270  
 G.A.E.K.R. ERS. M.R. Ch.S. /Hnd.  
 Fender Soundhouse  
**KINGFISHER MUSIC CO.**  
 20 Kings Rd., Fleet.  
 0251 C 21210  
 G.A.L.K. Spec. ERS.  
**HEREFORD**  
**MUSICAL INSTRUMENTS (HEREFORD) LTD**  
 30 Broad St., Hereford.  
 0437 2848  
 G.A.D.K.B.W.S. R.S. PT.

**HERTFORDSHIRE**  
**JERRY ALLEN ORGANS LTD.**  
 144 Shenley Rd., Borchamwood.  
 053 6924  
 G.A.D.K. Di.  
**HULL**  
**CHAVENS MUSIC CENTRE**  
 103-130 Holderness Rd., Hull 2AE  
 0482 23702  
 G.A. RS.  
**IRELAND**  
**THE BANO CENTRE**  
 9 Harcourt Rd., Dublin 2  
 0041 25 2663  
 G.A.K.P.A. Spec. H.P.A.  
**CRYMBLES**  
 75 Dublin Rd., Belfast  
 0222 26818  
 G.A.D.K.B.W.S. Di. Ac. R.S.M.  
**EVANS BROS.**  
 53 Bridge St., Ladbarn.  
 02782 2011  
 G.A.D.K.B.W.S. R.S.  
**MARCUS MUSICAL INSTRUMENTS**  
 39 Grosvenor St., Belfast.  
 0272 27873  
 G.A.D.K.B.W.S. Di. R.S.  
**ISLE OF MAN**  
**ISLAND MUSIC CENTRE**  
 The Guitar Centre, 27 Oake St., Douglas.  
 0242 41863  
 G.A.D.K.S. Di. H.R.S.  
**KENT**  
**ORUMLAND PERCUSSION**  
 15 Lovell St., Dartford.  
 322 4449  
 D.P.  
**MATTHEWS MUSIC STORE**  
 20 The Broadway, Maidstone.  
 0622 673355  
 P.S.G. P.A.H.  
**KENNARDS MUSIC**  
 64 Northdown Rd., Margate.  
 0843 23205  
 G.A.O. P.A.R.S.  
**LANARKSHIRE**  
**CHARNLEY**  
 377 Main St., Wathwa  
 05981 73897  
 G.A.D.K.S. Di. R.S.  
**LANCASHIRE**  
**HOBB'S MUSIC**  
 Sir Shing's Arcade, Lancaster  
 0524 60748  
 G.A.D.B.W.S. R.S.  
**LOTHAM MUSIC CENTRE**  
 81 Yorkshire St., Ottham.  
 063 620 3263  
 G.A.D.K.B.W. Di. R.S.T. G.O.  
**MUSICAL ELECTRONICS**  
 87 Euston Rd., Morcombe  
 0524 423147  
 G.A.D.K.B.W.S. Di. R.S.  
**S.A.L.**  
 Regent St., Showrooms, Regent St.,  
 Coppull, Nr. Chorley.  
 0257 791845  
 G.A.O. Di. L.P.A.R.S.  
**WOODS PIANOS & ORGANS LTD.**  
 15-17 Manchester Rd., Bolton.  
 0784 23171  
 Syn. G.A.D.K.B.W.S. Ac. S.F.I. P.A.R.S. ERS.  
 EK.M.R.C.S.M.P.T.  
**WOODS ORGANS & PIANOS LTD.**  
 14-16 Manchester Rd., Burnley  
 0282 33709  
 Syn. G.A.D.K.B.W.S. Ac. S.F.I. P.A.R.S. ERS.  
 EK.M.R.C.S.M.P.T.  
**WOODS PIANOS & ORGANS LTD.**  
 14 Church St., Preston Lancs.  
 0712 52855  
 Syn. G.A.D.K.B.W.S. Ac. S.F.I. P.A.R.S. ERS.  
 EK.M.R.C.S.M.P.T.  
**LEEDS**  
**KITCHENS**  
 27-31 Queen Victoria St., Leeds 1  
 0532 446343  
 G.A.D.K.B.W. Di. L.R.S.  
**SCHIEERERS**  
 8 Merrian Centre, Leeds LS2  
 0522 3240172  
 G.A.D.B.W.S. R.S.  
**LEICESTERSHIRE**  
**DRUMBEAT**  
 223 Milton Rd., Leicester  
 0533 836340  
 Spec. Di. P.  
**LOUGHBOROUGH MUSIC CENTRE**  
 13 The Rusks, Loughborough  
 05093 30398  
 G.A.D.K.W.S. Di. L.R.S. H.  
**SOUND PAD**  
 51-53 King Richard's Rd., Leicester  
 0532 28768  
 G.A.H. Di. L.R.S. P. Fender Soundhouse  
**TOWER MUSIC**  
 124 Green Lane Rd., Leicester  
 0533 769315  
 G.A.D.K.S. Di. R.S.  
**LIVERPOOL**  
**FRANK HESSY LTD**  
 62 Stanley St. Liverpool 1.  
 051 236 3416  
 G.A.D.K.B.W. Di. L.R.S.  
**SOUNDHOG P.A.**  
 66 Smithdown Rd., Liverpool  
 051 731 0088  
 G.A.D.P.A. Di. L.  
**LONDON**  
**CABIN**  
 156-3 Gatham Rd., London W12.  
 01-494 1121  
 G.A.O.H.R.S. R.C.H.  
**CASCADE MUSIC**  
 42-44 Upper Tooting Rd., Tooting SW7  
 01-472 3997  
 G.A.D.K.B.W.S. PA. Di. R.S. H.  
**COOPERS MUSICAL INSTRUMENTS**  
 76 Upton Lane, Forest Gate, E7.  
 01-472 9837  
 G.A. G.A.  
**STEPHEN DELFT**  
 242 Catic St., E.I.  
 01-790 7028  
 G.A.S.F.I. CB. 24hr RS.

**OMI MUSIC CENTRE**  
 219-212 High Rd., Willesden, NW10  
 01-555 1809  
**G.D.D.H.R.S.E.C.ERS.PA.CB. A**  
 Fender Soundhouse  
**F. O. & H. MUSIC**  
 178-140 Charing Cross Rd., WC2  
 01-536 4168  
 G.A.D.B.W.S. M.R.S. SM.  
**FREEDMANS**  
 631 High Rd., Leytonstone, E.11.  
 01-539 0224  
 G.A.D.K.B.W.S. PA. Di. R.S.  
**MAGARI'S ELECTRONIC KEYBOARDS**  
 70 Denmark St., WC2.  
 01-536 2856  
 E.K. Syn. RS.  
**MAGARI'S LTD.**  
 123 Charing Cross Rd., WC2.  
 01-426 9149  
**G.E.K. Ac. S.M.S.**  
**MAGARI'S MUSICAL EXCHANGE**  
 102 Charing Cross Rd., WC2  
 01-536 2656  
**A.P.A. Di. RS.**  
**MUSIC EQUIPMENT LTD.**  
 55 Camberwell Church St., SE5  
 01-701 2270  
**G.A.D.K. Di. L.R.S**  
**MUSIC HOUSE (S.E. ENTS)**  
 715 Lewisham High St., Lewisham SE13  
 01-498 3785  
 G.A.D.K.S. Di. L.P.A. R.S.  
**NB AMPLIFICATION**  
 17 Portvale, Forest Hill, London SE23  
 01-499 5025  
**E.C. CB. G.A.D.K. Di. H.P.A.S. Hnd. R.M.R.C.**  
**MAURICE PLACQUET**  
 358-350 Upmudge Rd., Shepherd's Bush, W12  
 01-749 3222  
**G.A.D.B.W.S. Ac. PA. R.S.P.**  
**RSD SYSTEMS LTD.**  
 128-125 Kensington Church St., W8.  
 01-229 1951  
**G.A.D.K.P.A. Syn. L.H. PA.**  
**ROSE-MORRIS RETAIL SHOWROOMS**  
 21-23 Shaftesbury Ave., London W1.  
 01-437 2213  
 G.A.O.E.K. Syn. B.W.S. Di. S.F.I. P.S.G. Hnd. R.S.M.  
**DAVE SIMMS MUSIC CENTRE**  
 1-5 The Grove, Ealing W5.  
 01-550 0520  
 Spec. G.A.P.A.S/Hnd. Di. L.  
**S.M.I. MUSICAL INSTRUMENTS**  
 41 Charing Cross Rd., WC2.  
 01-240 3386  
**G.A.D.K.B.W. R.S.**  
**ST. GILES MUSIC CENTRE**  
 16-18 St. Giles High St., WC2  
 01-536 2858/4880  
**G.A.D.B.W.S. Di. S.F.I. R.S.**  
**WESTERN MUSIC CO. LTD.**  
 120-132 King St., Hammermith W6  
 01-748 6524  
**G.A.D.K. R.S. T.**  
**WESTERN MUSIC CO. LTD.**  
 50 The Broadway, Wimbleson, SW19  
 01-540 8494  
**G.A.D.K. R.S. T.**  
**WESTERN MUSIC CO. LTD.**  
 14 Westway Hall, Upper Norwood, SE19  
**G.A.D.K. R.S. T.**  
**WESTERN MUSIC CO. LTD.**  
 25 Electric Ave., Brixton, SW9.  
 01 333 3326  
**G.A.D.K. R.S. T.**  
**MANCHESTER**  
**AL MUSIC CENTRE (GM SERVICES)**  
 55 Oxford St., Manchester 1.  
 061 218 0340  
**G.A.D.K. Di. L.R.S.**  
**TONY SAVILLE MUSIC CENTRE**  
 Peter House, Lower Mosley St., Manchester 2  
 061 256 4012  
**G.A.D.K.S. Di. R.S.H.**  
**NEWCASTLE-UPON-TYNE**  
**JEAVONS MUSICAL ENTERPRISES LTD.**  
 33-35 Percy St., Newcastle-Upon-Tyne.  
 0632 28095  
**O.G.A.O.MA - Wurlitzer.**  
**KITCHENS**  
 Ngham Music, New Bridge St.  
 0632 32965  
**G.A.D.K.B.W. Di. L.R.S.**  
**NORFOLK**  
**COOKES BANO INSTRUMENTS**  
 34 St. Benedicts Street, Norwich  
 0603 23563  
**G.A.D.K.S. Di. R.S.**  
**NORTHAMPTONSHIRE**  
**JORDANS MUSIC CENTRE LTD.**  
 17-18 Victoria Rd., Wellingborough.  
 0932 332 687  
**G.A.D.O.B.W.S. Di. R.S.**  
**MIDLAND MUSIC CENTRE LTD**  
 6 Cowley St., Northampton.  
 0604 38832  
**G.A.O. K.B.W.S. Di. R.S. T.I.R.**  
**TREASURE MUSIC**  
 64 Gold St., Kettering  
 0538 2013  
**G.A.D.B.W. Spec. K.ERS.**  
**NOTTINGHAM**  
**CARLSBERG SOUND CENTRE**  
 132-134 Chesterfield Rd., North, Mansfield.  
 0623 25199  
**G.A.D.K. Di. L.R.S. L.P.A. Inst.**  
**CARLSBERG SOUND CENTRE.**  
 5-1 Station St., Mansfield.  
 0623 25804  
**B.W.K. Ac. S.F.I. SM.**  
**CLEMENTS PIANOS LTD.**  
 21-23 Dorby Rd., Nottingham.  
 0602 47917  
**G.A.O.P.B.W.S.S.M.R.S.**  
**A.E. COOKE & SON LTD.**  
 16 Westgate, Peterborough.  
 0732 6231  
**G.A.O.K.H.R.S.**  
**HARDY SMYTH MUSIC CENTRE**  
 2a Outram St., Sutton-on-Ashfield  
 062 35 6247  
**G.A.D.K.B.W.S. R.S. SM.**

**TYNESIDE**  
**WHITE SOUND EQUIPMENT**  
 1 Albion Place, Sunderland.  
 0783 1805  
**G.A.S.P.A. H.R.S.**  
**WALES**  
**JOHN HAM**  
 75 Mansel St., Swansea.  
 0797 59968  
**G.A.O.K.B.W. Di. R.S. S.H.**  
**PETER NOBLE LTD.**  
 11 Station Rd., Llanishan, Cardiff.  
 0222 359311  
**E.C. Syn. G.K.B. Di. P.W.S. Di. L.**  
**5/hnd. M. Spec. P.A.R.S.**  
**SOUND CENTRE**  
 129 High St., Bangor.  
 0248 57320  
**A.D.L. R.S. S.F.I. H.S.M. Spec. -G.O.O.**  
**SOUND CENTRE**  
 5 St. John's Sq., Cardiff.  
 0222 5018  
**G.A.O.K.B.W.S.**  
**WARWICKSHIRE**  
**MIDLAND SOUND LTD.**  
 33 Skipton St., Rugby.  
 0788 31419  
**A.D.L.H. PA. R.S. M.**  
**WILTSHIRE**  
**STRINGS & THINGS**  
 38 Fleet St., Swindon.  
 0793 19384  
**G.A.D.K.B.W.S. Di.**  
**YORKSHIRE**  
**ISG MUSICAL SERVICES**  
 108-6 Main St., Bingley.  
 09766 62843  
**A.D.S. H.P.A. S6 Hnd. R.S. ERS. M. CB. G.**  
**KITCHENS**  
 26 North Parade, Bradford.  
 0742 27577  
**G.A.D.K.B.W. Di. L.R.S.**  
**KITCHENS**  
 32 Red St., Barnsley.  
 0226 5887  
**G.A.D.K.B.W. Di. L.R.S.**  
**PROFESSIONAL MUSIC CENTRE**  
 13 Netherhall Rd., Doncaster.  
 0702 58157  
**G.A.D. W.K.T.**  
**SCOTLAND**  
**JERRY ALLEN ORGANS LTD.**  
 25 John Finnie St., Kilmarnock, Ayrshire.  
 0565 28450  
**G.A.O.K. Di**  
**INK MUSIC**  
 26 St. Margaret St., Dumfermline.  
 0883 21325  
**G.A.D.K.P.A.**  
**McCLAREN MUSIC LTD.**  
 21-23 Bruntsfield Place, Edinburgh.  
 031 229 0016/39795  
**G.A.O.K. Di. P.A. Inst.**  
**0122 661863**  
**McGORMACKS**  
 35 Balm St., Glasgow, G2 1H  
 041 272 8444  
**G.A.E.K.E.C. Di. R.S.**  
**THE MUSIC BOX**  
 7-9 Whitburn Rd., Bathgate.  
 0756 52823  
**G.A.D.K.B.W.S. R.S. SM**  
**SHEFFIELD**  
**CARLSBERG SOUND CENTRE**  
 13 Berkeley Precinct, Off Ecclesall Rd.,  
**G.A.D.K. Di. M.Syn. R.S. L.P.A. Inst.**  
**0122 661863**  
**HUDSONS OF SHEFFIELD**  
 131 The Moor, Sheffield 1.  
 0742 76701  
**G.D.S. W.S.M.R.S.**  
**JOHNSON ELECTRICS (Lesley Ltd.)**  
 27 Landon Rd., Sheffield 2.  
 042 43272  
**G.A.D.K. Di. R.S.**  
**MUSICAL SOUNDS**  
 124 Landon Rd., S24 8NA  
 0742 44445  
**G.A.K.B.W. R.S. T. Spec. D.**  
**STAFFORDSHIRE**  
**THE ABBEY MUSIC CO.**  
 44 Market Place, Burton-on-Trent.  
 0753 2484  
**G.A.D.K.B.W.S. P. Di. L.R.S.**  
**CHATFIELD'S MUSIC STORE**  
 7 Hope St., Hanley, Stoke-on-Trent  
 0782 22415  
**G.A.D.B.W.S. Syn. Ac. S.F.I. P.A.M. R.S.**  
**NORMANS**  
 1 Lichfield St., Burton-on-Trent.  
 0283 62281  
**G.A.D.K.B.W.S. R.S.**  
**SURREY**  
**BOB ANDERSON MUSIC LIMITED**  
 120 Landon Rd., Camberley.  
 0776 79960  
**G.A.O. R.S.**  
**ANDERTONS MUSICAL CENTRE**  
 5 Stonefields, Guildford.  
 0483 25922  
**G.A.D.K.W. R.S. Di.**  
**DOWN UNDER**  
 57 High St., Redhill, RH1 15G  
 016 8821  
**G.A.D.K.W.H. R.S.**  
**JOHN KING SOUNDS**  
 6 Richmond Rd., Kingston.  
 066 91005124  
**G.A.D.K.B.W. Di. R.S.**  
**SUTTON MUSIC CENTRE**  
 68 Haddon Rd., Sutton.  
 0682 2838  
**G.A.O.B.W.S. S.M.R.S.H. Di.**  
**WESTERN MUSIC CO. LTD.**  
 52-54 High St., Craydon  
 063 1248  
**G.A.D.K. R.S. T.**  
**SUSSEX**  
**HASTINGS SOUND**  
 37 Kings Rd., St. Leonards-on-Sea.  
 0244 47370  
**G.A.D. Di. L.S/Hnd. R.S.**

**KEY:**

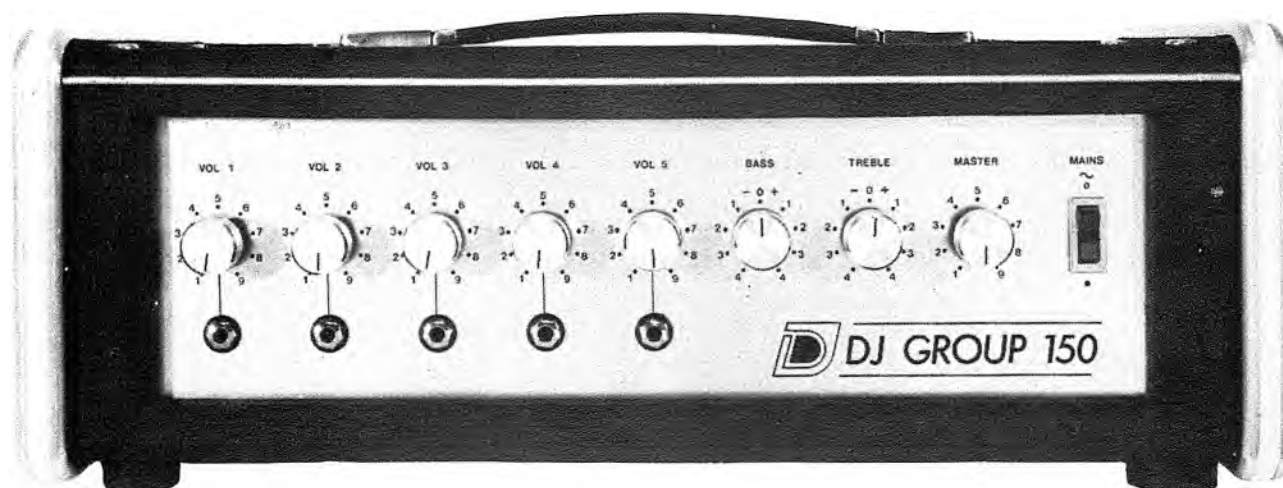
G. Guitars	W. Woodwind	T. Tuihon	Ac	Accorians	MA	Main Agents	EC	Echo Chamber
A. Amplifiers	S. Strings	M. Mixes	SFI	Sacral - related Inst.	HS	Repair Service	Di.	DeConing
D. Drums	Oi. Disco	P.C. Percussion/Drum	PA	Public Address	Spec	Specialists	Di.	Diagrams
K Keyboards	L. Lighting	SV. Sheet Music	PSG.	Pedal Steel Guitars	ERS.	Electronic Reaars	IR.	Instrument Rental
B Brass	H. Hire	P. Percussion	S/Hnd	Secondhand	EK	Electric Keyboards	CB	Custom Building



# ONE GOOD IDEA....



# LEADS TO ANOTHER.. AND ANOTHER



*D.J. DISCO VOX MK.2*, The latest addition to our discotheque range, the mixer incorporates panel mounted deck switches, and illuminated deck and cue pilot lights plus individual deck volume controls. Also features, tape input, two microphone inputs, and voice activated over-ride system.

*D.J. GROUP 150 AMP.*, The first in a long line of group amplifiers from D.J. Proven solid state technology experience gained in the last seven years has been used in the design of this amp. Five channel mixer plus a true 150w R.M.S. Also available is a straight 150w slave.



Further details of these  
and all our range are available from:

## DJ ELECTRONICS

D.J. ELECTRONICS  
Head Office,  
83 Queens Road,  
Southend, Essex.  
0702-352613

DISCOSOUND  
56 Queens Rd.  
Southend,  
Essex.  
0702-353033

What do you call an amp that has been designed for both Stage and Studio use, which includes a Hammond Reverb unit, an output of 30 watts (r.m.s.) and a tonal response that will bring tears to the eyes of a sceptical road manager?



We call it the  
**Selmer Super Reverb 30**

**New 100's too!**



Lead 100



Bass 100



Slave 100



*shaper today's music*  
**Selmer**

HENRI SELMER & CO. LTD.  
Woolpack Lane, Braintree,  
Essex CM7 6BB. Tel: 0376 21911